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Stuck in the past

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Principal commercial offices:

The Adelphi Building, 1-11 John Adam Street,
London WC2N 6HT
Tel: +44 (0) 20 7830 7000

Rue de l'Athénée 32
1206 Geneva, Switzerland
Tel: +41 22 566 2470

750 3rd Avenue, 5th Floor, New York, NY 10017
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1301 Cityplaza Four,
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Politics



America reimposed sanctions on **Iran**, three months after pulling out of an accord brokered in 2015 to roll back its nuclear-weapons programme. A European Union law aims to shield EU-based firms that deal with Iran from the sanctions. But Donald Trump tweeted that anyone doing business with Iran will not be doing business with America. Scores of international companies have said they will comply with the order. Tougher sanctions come into force in November that curb Iranian energy exports.

Saudi Arabia expelled **Canada's** ambassador, froze trade with the country and will reportedly dump its Canadian investments. The kingdom's ire was raised by a series of tweets from Canada's foreign minister, in which she called for the release of Saudi human-rights activists.

The government in **Zimbabwe** continued arresting and torturing members of the opposition, two weeks after disputed elections that saw President Emmerson Mnangagwa and his ruling Zanu-PF party hang onto power. The situation is chaotic. According to reports, the chief of the armed forces did not order the crackdown. A former army chief, Constantino Chiwenga, who is now the vice-president, is suspected of calling the shots.

Joseph Kabila said he would not run for a third term as president of the **Democratic Republic of Congo**. The constitution says he cannot, but

that did not previously trouble him. His term should have ended in 2016. An election is scheduled for December.

Nigeria's vice-president, Yemi Osinbajo, who is acting as president while Muhammadu Buhari is on holiday, fired the country's spy chief after masked security men barricaded parliament. Dozens of lawmakers recently switched their loyalty from the ruling party to the opposition.

I'd start worrying

The Republicans appeared to have clung on in a special election for a congressional seat in the suburbs of Columbus, **Ohio**. The Republican candidate's margin of victory stood at just one percentage point in a district that the party won by 37 points in 2016. In another election that was too close to call, Kris Kobach, who spearheaded (unfounded) allegations of voter fraud at the election in 2016, had a tiny lead in the Republican primary for governor of **Kansas**.

Chicago endured its bloodiest weekend of the year. At least 74 people were shot between Friday afternoon and early Monday, 12 of them fatally.

Presidential target

In an apparent attempt to assassinate **Venezuela's** president, Nicolás Maduro, two drones carrying explosives flew near him as he addressed the paramilitary National Guard. One blew up in mid-air. The other struck a building. The guardsmen panicked and fled. A group calling itself Soldiers in T-shirts claimed responsibility. At least seven people were arrested. Inflation in Venezuela is so high that prices double every 25 days.

The left-wing Workers' Party in **Brazil** nominated Luiz Inácio Lula da Silva, a former president, as its presidential candidate. He leads in the polls, but is in jail for corruption and will probably be disqualified. The second-most-popular candidate, Jair Bolsonaro, a right-wing former army captain, named a former general, Hamilton Mourão, as his running-mate. Last year Mr Mourão suggested that the army could intervene to solve Brazil's political problems.

Iván Duque was sworn in as **Colombia's** president, succeeding Juan Manuel Santos, who negotiated a peace deal ending a long-running war with the FARC guerrilla group. Mr Duque is a critic of the peace agreement. As one of his last acts Mr Santos gave 440,000 refugees from Venezuela the temporary right to stay in Colombia.

Argentina's senate rejected a bill to allow women to have abortions in the first 14 weeks of pregnancy. Abortion is permitted only in cases of rape or to protect a woman's health.

Little currency

The threat of American sanctions in a row over the detention of an American pastor in **Turkey** sent the Turkish lira reeling. It hit record lows against the dollar, having lost a third of its value since the start of this year. A Turkish minister flew to Washington to try to resolve the dispute. Separately, America imposed new sanctions on **Russia** for the nerve-agent attack on a former Russian spy in Britain.

Italy's senate voted to overturn legislation that requires all children to be vaccinated against measles. Some in the ruling coalition believe anti-vaccine conspiracy theories. The measles virus is highly contagious.

On the road

Students in Dhaka, the capital of **Bangladesh**, ended their protests demanding better road safety. The demonstrations began after a boy and a

girl were killed by a speeding bus. The protests unsettled the government. Rubber bullets and tear gas were fired into the crowds and clashes erupted between the students and activists from the ruling party's youth league.

The government of **Australia** promised more aid to farmers stricken by drought. The entire state of New South Wales, which produces a quarter of Australia's agricultural output, was declared to be in drought after recording its driest January to July period since 1965.



An earthquake of magnitude 6.9 struck the **Indonesian** island of Lombok, killing hundreds of people. With thousands of buildings destroyed, more than 156,000 islanders were displaced.

In **China** police quashed a protest against collapsed peer-to-peer lending schemes before it could get going. The protesters had planned to converge on locations in Beijing, but the authorities were ready, quickly dispatching would-be demonstrators in buses to destinations unknown. Lending schemes occasionally collapse in heaps of fraud, leaving participants penniless and angry.

China decided not to allow cinemas to show Disney's new **Winnie the Pooh** film, "Christopher Robin". No reason was given. On Chinese social media Xi Jinping has been relentlessly (if gently) mocked for his resemblance to the portly bear. Jokers swap pictures of Pooh and his pals for images of Mr Xi with foreign leaders. Censors insist that it is not funny how a bear likes honey, no matter how much buzz, buzz, buzz it generates. ►►

Business

Even by the standard of his previous capricious outbursts, Elon Musk's tweet that he is thinking about taking **Tesla** private left investors scratching their heads. Such a buyout would be the biggest in history. In a memo on the carmaker's website, Mr Musk said he was considering the move to shield Tesla, which has been plagued by production problems, from the short-term demands of public markets and to stop short sellers from attacking Tesla's shares. Some wondered whether such a significant disclosure about the business followed the proper regulatory rules. Mr Musk's announcement came on the heels of reports that a Saudi investment fund had taken a stake in the company.

I'll see your bet and raise you The **trade war** between America and China intensified. The Trump administration proceeded with plans to impose tariffs on a further \$16bn-worth of goods from China, which come into effect on August 23rd. China said it would respond in kind. It had earlier threatened to levy new duties on \$60bn-worth of American exports if America implemented tariffs on another \$200bn-worth of Chinese products.

Germany's economy ministry in part blamed "uncertainties" in trade for a decline in manufacturing orders. Orders from within the euro zone and domestically fell by almost 3% between May and June. Those from outside the currency bloc dipped by 6%.

New York's city council voted to stop issuing new licences for ride-hailing cars for a year while it reassesses the industry, and also to set a minimum wage for drivers. Although existing licensed drivers will still be allowed to operate, the ruling is a setback for **Uber** in its biggest market.

Unfazed by American sanctions and boosted by higher oil prices, **Rosneft's** quarterly net

profit surged, to 228bn roubles (\$3.7bn). After years of big acquisitions, the Russian oil producer, the world's biggest listed oil company by output, said its buoyant earnings reflected improved efficiency.

Glencore's headline profit for the first half of the year rose to \$8.3bn, a record for the mining and commodities-trading firm. Its metals business benefited from rising commodity prices in the first half, particularly in battery-related metals such as nickel and cobalt. However, cobalt prices have plunged recently, as China has upped its exports of the metal.

Peak social media?

Snap followed Facebook, Netflix and Twitter by reporting disappointing user-growth figures. Daily users of the **Snapchat** app actually fell by 2% from April to June compared with the previous three months. Snap got a vote of confidence, however, from Prince Alwaleed bin Talal, a prominent Saudi investor, who has amassed a 2.3% stake.

Cisco expanded its business in cyber-security by agreeing to pay \$2.4bn for **Duo**, which provides a two-factor authentication service. With companies increasingly concerned

about hacking and identity theft, the market for technology that requires staff to enter additional security details when accessing corporate computer systems is expected to grow rapidly.

America's Department of Justice filed an appeal against a judge's decision to permit the merger of **AT&T** and **Time Warner**. The department argues that the judge ignored principles of "common sense" in his ruling.



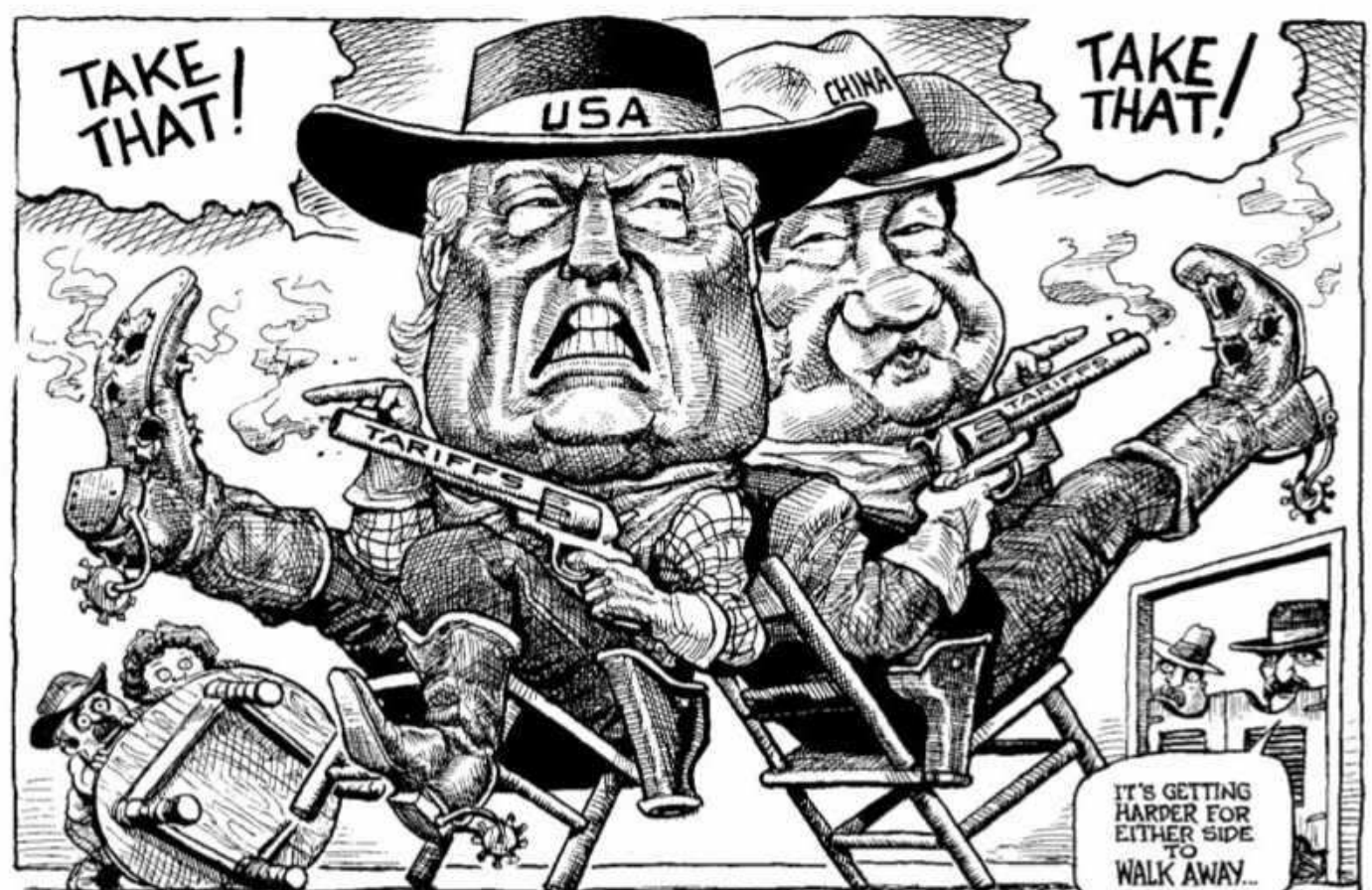
The **pound** fell below \$1.29 for the first time in almost a year, as worries mounted that Britain could leave the European Union next March without a trade deal. Britain's trade secretary did little to allay those fears when he gave the odds of crashing out of the EU at 60-40. Sterling also hit its lowest level against the euro since last October, at €1.11.

Royal Bank of Scotland said it would pay its first dividend since its bail-out during the financial crisis. The government still owns a 62.4% stake in RBS. Recommencing payouts may widen the pool of potential investors as the government further reduces its stake.

Indra Nooyi decided to retire as chief executive of PepsiCo after 12 years in the job. During her tenure Ms Nooyi steered the company away from its over-reliance on soft drinks and snacks towards healthier foods, juices and water. She saw off a subsequent campaign led by Nelson Peltz, an activist investor, to split the company in two. Her successor is Ramon Laguarta, a PepsiCo veteran.

Flat-packing all over the world **IKEA** opened its first outlet in **India**. The store, in Hyderabad, differs slightly from IKEA's shops in other countries by offering a wider range of cheap goods, 1,000 of which will sell for less than 200 rupees (\$2.90), as well as a 1,000-seat restaurant. Indians now, too, will get to know the pleasure of assembling a PAX wardrobe over a weekend.

For other economic data and news see Indicators section



Stuck in the past

Countries must overhaul their tax systems to make them fit for the 21st century



IF YOU are a high earner in a rich country and you lack a good accountant, you probably spend about half the year working for the state. If you are an average earner, not even an accountant can spare you taxes on your payroll and spending.

Most of the fuss about taxation is over how much the government takes and how often it is wasted. Too little is about how taxes are raised. Today's tax systems are not only marred by the bewildering complexity and loopholes that have always afflicted taxation; they are also outdated. That makes them less efficient, more unfair and more likely to conflict with a government's priorities. The world needs to remake tax systems so that they are fit for the 21st century.

Let me tell you how it will be

Jean-Baptiste Colbert, the finance minister of Louis XIV of France, famously compared the art of raising tax to "plucking the goose so as to obtain the largest possible amount of feathers with the smallest possible amount of hissing". Tax systems vary from one economy to another—Europe imposes value-added taxes, America does not. Yet in most countries three flaws show how the art of plucking has failed.

One is missed opportunities. Expensive housing, often the result of a shortage of land, has yielded windfall gains to homeowners in big, global cities. House prices there are 34% higher, on average, than five years ago, freezing young people out of home ownership (see Finance section). Windfall gains should be an obvious source of revenue, yet property taxes have stayed roughly constant at 6% of government revenues in rich countries, the same as before the boom.

Another flaw is that tax sometimes works against other priorities. Policymakers in the rich world worry about growing inequality, which is at its highest level in half a century. In the OECD, a group of mostly developed countries, the richest 10% of the population earn, on average, nine times more than the poorest 10%. Yet over this period, most economies (though not America's) have shifted the composition of labour taxation slightly toward regressive payroll and social-security levies and away from progressive income taxes.

Tax systems have also failed to adapt to technological change. The rising importance of intellectual property means that it is almost impossible to pin down where a multinational really makes money. Tech giants like Apple and Amazon stash their intangible capital in havens such as Ireland, and pay too little tax elsewhere. This month it emerged that Amazon's British subsidiary paid £1.7m (\$2.2m) in tax last year, on profits of £72m and revenues of £11.4bn. By one recent estimate, close to 40% of multinational profits are shifted to low-tax countries each year.

The "solutions" to such problems often only exacerbate the daunting complexity of today's tax code—and, if lobbies have their way, add extra loopholes too. The European Union wants to determine when firms have a "virtual nexus" in a state, and

will then allocate profits across countries using a complicated formula. America's supposedly simplifying recent tax reform included stunningly complex new rules for multinationals. International efforts to co-operate to prevent profit-shifting have made progress. But they are hamstrung by disagreements over how to treat technology firms and competition for investment in a world where capital crosses borders.

Fundamental tax reform can boost growth and make societies fairer—whatever the share of GDP a government takes in tax. Fortunately, the principles according to which rich countries can design a good system are clear: taxes should target rents, preserve incentives and be hard to avoid.

All countries should tax both property and inheritance more. These taxes are unpopular but mostly efficient. In a world where property ownership brings windfalls that persist across generations, such taxes are desirable. A conservative first step would be to roll back recent cuts to inheritance tax. A more radical approach would be to introduce a land-value tax, the most efficient of all property taxes and one with a long liberal heritage (see Briefing).

Economists are sceptical of taxing other forms of capital, for the good reason that it discourages investment. But capital's share of rich-world GDP has risen by four percentage points since 1975, transferring nearly \$2trn of annual global income out of paycheques and into investors' pockets. Given that competition is declining in many markets, this suggests that businesses are increasingly able to extract rents from the economy. Taxes on capital can target those rents without disturbing incentives so long as they include carve-outs for investment.

To stop companies shifting profits, governments should switch their focus from firms to investors. Profits ultimately flow to shareholders as dividends and buy-backs. But few people are likely to emigrate to avoid taxes on their investment income—Apple can move its intellectual property to Ireland, but it cannot put its shareholders there. Corporate tax should be a backstop, to ensure that investors who do not pay taxes themselves, such as foreigners and universities, still make some contribution. Full investment expensing should be standard; deductions for debt interest, which incentivise risky leverage for no good reason, should be scrapped.

As the labour market continues to polarise between high earners and everyone else, income taxes should be low or negative for the lowest earners. That means getting rid of regressive payroll taxes which, in North America, could be replaced with underused taxes on consumption. Though these are also regressive, they are much more efficient.

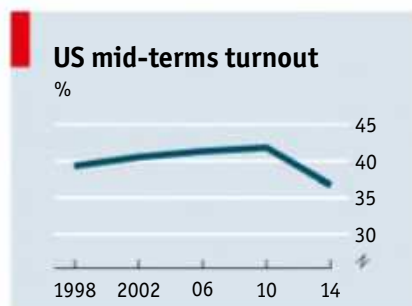
One for you, nineteen for me

Adam Smith said that taxes should be efficient, certain, convenient and fair. Against that standard, today's tax policies are unforgivably cack-handed. Politicians rarely consider the purpose and scope of taxation. When they do change tax codes, they clumsily bolt on new levies and snap off old ones, all in a rush for good headlines. Rewriting the codes means winning over sceptical voters and defying rapacious special interests. It is hard work. But the prize is well worth the fight. ■

Democracy in America

Sign me up

Voting should be easy. Many states are making it harder



AMERICA'S mid-term elections in November will be hugely consequential. If the Democrats capture the House of Representatives, as *The Economist's* model suggests they have a three-in-four chance of doing, they will control congressional

committees that now protect President Donald Trump from harsh investigation. If Republicans hold on, they can pick up their attempt to repeal Obamacare. Yet few Americans are expected to vote in the mid-terms. Last time, in 2014, just 37% of eligible voters turned out. Worse, many legitimate voters this autumn will be deterred or blocked from casting ballots.

In some states voters have been "purged" from the rolls in overzealous clean-up efforts (see United States section). Other states demand ever more documentary proof that people are eligible to vote. Well-off homeowners who drive cars and have passports barely notice such hurdles. But young, poor and ethnic-minority voters are more likely to crash into them. Often, this is not just an unfortunate side-effect of tighter voting rules; it is their intent. In Tennessee and Texas student ID cards are not acceptable forms of identification—though gun permits are fine.

The ostensible purpose of such rules is to prevent electoral fraud. If that were common, they might be justified. But diligent research by the Heritage Foundation, a think-tank, has turned up fewer than 1,200 instances of fraud since 1982, many of them by officials, not fake voters. Billions of votes have been cast since then. A commission to investigate illegal voting set up by Mr Trump was disbanded before it produced a report. In June a judge ruled that Kris Kobach, Kansas's secretary of state and vice-chairman of the commission, had failed to prove that the statistics concealed an "iceberg" of unrecorded voter fraud

in his state. "There is no iceberg," the judge wrote, "only an icicle, largely created by confusion and administrative error."

Voter purges and identification laws are anti-democratic. Particularly in the South, where the laws are most unbending, they seem to push America back towards the early 20th century, when blacks were systematically prevented from voting. Scare stories about fraudulent voting also distract from the genuine problem of meddling in American elections by Russia. In the long run, barriers to voting may even be bad for the Republicans who usually erect them. Every moment they spend thinking about how to make voting harder is a moment they do not spend thinking about how to attract new non-white voters—a puzzle they will have to crack eventually.

The Department of Justice used to prevent states from erecting barriers to voting. Under Jeff Sessions, it winks at such efforts. Mr Sessions, who is supposed to enforce laws that promote voting like the National Voter Registration Act and the Help America Vote Act, should reconsider. Though an early Trump backer, he has shown some courage and independence, enduring much presidential barracking and knocking down Republican demands for him to investigate the FBI.

Vote early, vote often

It would be better still if states made it easier to vote, not harder. There is no reason not to enroll voters automatically when they encounter state officials. A dozen states, not all of them left-leaning, do so already. Three-quarters allow people to vote early, by post; the most adventurous states, such as California and Colorado, are moving to postal voting by default.

One reform above all would boost turnout. Americans vote on Tuesdays not because the constitution says they must, but because of a law passed in 1845. So pass another one, creating a public holiday or moving national elections to the weekend (as in many democracies). Voting is worth celebrating. ■

Brazilian politics

Brasília, we have a problem

Jair Bolsonaro, a presidential candidate who is second in the polls, is a threat to democracy



WITH just two months to go before the first round of Brazil's elections, no one has a clue what will happen. The front-runner for the presidency, Luiz Inácio Lula da Silva, a left-wing former president, is in jail; the courts will almost certainly

bar him from running. The rest of the presidential field is fragmented—no candidate polls over 20%. Unless someone wins a majority, the vote will go to a second round on October 28th. At the moment, any of four or five people could win it.

Lula's probable disqualification is just one of many reasons

why this election is especially worrying (see Americas section). His supporters are convinced that he has been unfairly singled out, that the corruption charges against him are trumped up and that his 12-year sentence is excessive. His removal from the race will undermine their trust in it. But under a law that Lula himself signed when he was president, convicts may not run for office. The courts should enforce it.

His exit would heighten a second danger—that Jair Bolsonaro (pictured), a flame-throwing right-winger who is second in the polls, will become the front-runner. The former army captain has barged into the front ranks of candidates through a combination of outrageous provocation and mastery of social media. Even if he does not win, the fact that he has come so far ►►

► shows that the centre ground of politics is crumbling. Rejecting Mr Bolsonaro outright would be the best way of shoring it up.

Until recently, he was an obscure congressman whose main talent was causing offence. In 2011 he said he would prefer a dead son to a gay one. In 2014 he said of a congresswoman that he wouldn't rape her because she was "very ugly". Last year a court fined him for insulting people who live in *quilombos*, settlements founded by escaped slaves.

Mr Bolsonaro would have remained a fringe figure but for the traumas Brazil has endured over the past four years. The economy suffered its worst-ever recession in 2014-16 and is recovering haltingly. In 2016 a record 62,517 Brazilians were murdered. The *Lava Jato* ("Car Wash") corruption cases have led to investigations and indictments of leading figures in every big political party and discredited the entire political class.

Mr Bolsonaro proposes brutal solutions to his country's problems. He thinks that "a policeman who doesn't kill isn't a policeman" and wants to reduce the age of criminal responsibility to 14. This iron fist belongs to an authoritarian worldview. In 2016 he dedicated his vote to impeach the then-president, Dilma Rousseff, to Carlos Alberto Brilhante Ustra, commander of a police unit responsible for 500 cases of torture and 40 murders during Brazil's dictatorship. The charge against Ms Rousseff, who belongs to Lula's Workers' Party, had nothing directly to do with *Lava Jato*. But in paying tribute to Ustra, Mr Bolsonaro was asserting that the values of the dictatorship, which governed in 1964-85, are the antidote to today's corruption. Mr Bolsonaro has reinforced that message by naming Hamilton Mourão, a retired general, as his running-mate.

Last year, while still in uniform, Mr Mourão suggested that, if other institutions failed to solve Brazil's problems, the army could. The left is mainly to blame for the country's ills, in Mr Bolsonaro's cold-war-tinted view.

To Brazilians fed up with politicians, Mr Bolsonaro sounds like an anti-politician. Some businessmen are flirting with him. They like his pistol-packing rhetoric on crime and are intrigued by his recent conversion to economic liberalism (he favours privatising some state enterprises).

Genuflecting to generals

Yet Mr Bolsonaro would make a disastrous president. His rhetoric shows that he does not have sufficient respect for many Brazilians, including gay and black people, to govern fairly. There is little evidence that he understands Brazil's economic problems well enough to solve them. His genuflections to the dictatorship make him a threat to democracy in a country where faith in it has been shaken by the exposure of graft and the misery of the economic slump.

Over 60% of Brazilians say they will never vote for him, more than three times the share of those who say that he has their backing. He lacks support from any strong political party. If he makes it to the second round, odds are that voters will reluctantly choose the alternative, perhaps Geraldo Alckmin, a centrist candidate. He does not deserve to make it even that far.

There is no room for complacency. Other countries with Brazil's mix of crime, elite failure and economic agony have elected radical leaders whom the pundits dismissed as no-hopers. It could happen again. ■

Foreign direct investment

Prudence not protectionism

How to safeguard national security without scaring away Chinese investors



critics, were America's economic strength, military security and technological competitiveness. So emerged the first effort to screen foreign direct investment (FDI) into the United States on national-security grounds. Since then, things have become immeasurably more complicated.

Now the main predator is China. The prey is all manner of technology and data, some with overlapping military and civilian uses. The security and surveillance concerns have gone global. President Donald Trump has a bill on his desk, approved in recent weeks with bipartisan support in Congress, that expands the scope of the Committee on Foreign Investment in the United States (CFIUS), an inter-agency body able to block deals that may threaten national security. This week Germany's government indicated that it would increase its power to block FDI, for the second time in just over a year. Britain is doing likewise, and the European Union is developing an overarching screening framework for its members. Australia and

Japan both expanded their scrutiny last year. China itself says that it is tightening up on foreign investors.

Such safeguards are, in principle, entirely justifiable. Weapons systems exploit ever more advanced technology, including artificial intelligence (AI). The economies of the world's great powers are intertwined, as they were not in the cold war. Data know no borders, and the line between friend and foe is not always clear. What is more, China has a history of stealing intellectual property even as it blocks foreign investment at will.

But the detail matters. Governments will inevitably be lobbied to use their expanded powers not just to preserve national security but also to promote economic one-upmanship. That is when prudence becomes protectionism.

I spy with my FDI

So far, many of the safeguards coming into law are prudent—surprisingly, perhaps, given this year's trade rows (see Finance section). In America the Foreign Investment Risk Review and Modernisation Act, the biggest revamp of CFIUS in a decade, is level-headed. If enacted, it will expand the committee's powers to assess not just foreign acquisitions but minority holdings that give investors access to, or influence over, critical infrastructure, technology or sensitive personal data. The definition of the technologies it covers will become broader—but at least the focus remains on the advantages they provide ►

► for defence, intelligence and other areas of national security. The proposed EU rules emphasise the need to balance openness to FDI with protection of “security or public order”, something only 12 member states screen for. Both America and the EU also draw attention to who stands behind the foreign investors. When it comes to China, such influence is a particular concern (see Business section).

Yet in this murky world, lines are repeatedly crossed. Mr Trump set a bad precedent when he used national security as an excuse to impose tariffs on steel and aluminium imports. Germany wants to broaden its restrictions on “critical infrastructure” to include sewerage, among other services, which risks leading to more intervention. Its lawmakers demand protection for the *Mittelstand*, the heartland of specialist firms. Ministers in Europe, frustrated that foreign firms are sometimes shut out of China, think screening can level the field.

Knee-jerk responses to China risk curbing collaboration as well as competition. Blocking FDI on national-security grounds should be a last resort, not a first line of defence. There are ways to minimise abuse in the screening process. It makes sense to pay attention to technologies, such as AI and robotics, which can have civilian and military uses. But to come up with

a long list of industries—including, as some Americans advocate, cinemas—that might fall prey to foreign manipulation goes too far. Instead, investments should be vetted case by case and the decision open to judicial review. The policy should not restrict itself to a particular country. What China does today, Russia may do tomorrow. Look for technological fixes. Britain mitigated some of its concerns about Huawei, a Chinese telecoms firm, by using an evaluation centre that inspects the hardware and software that the company supplies to the telephone network; this year the centre asked for changes. And the policy should be used strictly for national security, not trade diplomacy. Raising the drawbridge will not convince China to open up. There are other ways, such as export controls and bilateral investment treaties, to deter broad intellectual-property theft and to encourage reciprocity.

Safeguards alone cannot keep the West’s technological edge. China already spends more on research than the EU; the National Science Foundation, a federal agency, reckons that it could overtake America by the end of the year. The West could look to incentives for long-term research and more welcoming visa policies. The idea of an innovation strategy may be worth borrowing, too. That is one thing to learn from China. ■

Education

Down with summer holidays

Long breaks are bad for children and for social mobility



YOU return from work on a muggy August evening. Your unwashed teenage son is on the sofa playing Fortnite, as he has been doing for the past eight hours. Your daughter, scrolling through Instagram, acknowledges your presence with a surly grunt. Not for the first time, you ask yourself: why are school summer holidays so insufferably long?

This is a more serious question than it sounds (see International section). Many children will return from the long break having forgotten much of what they were taught the previous year. One study from the American South found that this “summer learning loss” could be as high as a quarter of the year’s education. Poor children tend to be the worst affected, since rich ones typically live in homes full of books and are packed off to summer camp to learn robotics, Latin or the flute. A study from Baltimore found that variations in summer loss might possibly account for two-thirds of the achievement gap between rich and poor children by the age of 14-15. Long holidays definitely strain the budgets of poor families, since free school meals stop and extra child care kicks in.

Summer holidays vary greatly from country to country. South Korean children get only three weeks off. Children in Italy and Turkey get a whopping three months. So do those in America, where their parents, unless they are teachers, have an average of only three weeks off a year, among the shortest holidays in the rich world. Companies should let them take a bit more, since burnt-out workers are less productive. But, for their children, six weeks out of class is plenty.

Youngsters will hate the idea of a longer school year. Many

grown-ups will object to it, too. It would cost taxpayers more, since teachers would have to be paid for the extra days. Schools in hotter areas would spend a fortune on air-conditioning. Sceptics also note that, although those barely rested South Korean pupils do superbly in exams, they are often miserable. Is that really what you want for your darlings?

We got no class, we got no principles

It would be unwise to import South Korea’s pressure-cooker approach, in which a single exam determines every child’s future. But plenty of Western children could usefully spend a bit longer at their books. Yes, it would cost money, but there are ways to pay for it. One is to have larger classes. Many parents are obsessed with teacher-to-pupil ratios, but there is scant evidence that they make much difference. The average Japanese lower-secondary class is more than 50% larger than the average British one, but Japanese children get better results.

More time in school need not mean repeating the same old lessons. Some extra drilling would be beneficial, particularly for those falling behind. But the summer could also be a time for different kinds of learning: critical thinking, practical skills, financial literacy, work placements with local firms—schools should be free to experiment. Space should not be a problem. Many school buildings sit idle in the summer.

Well-off children often already use the summer to broaden their minds and burnish their college applications at pricey camps or doing summer jobs found through connections. Schools should help the rest catch up. Other public services do not simply vanish for a quarter of the year. It would be unthinkable for hospitals or the police to do so. So why do schools get away with it? Their responsibility to educate does not end when the mercury rises. ■



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German military capability

Long-term underfunding is indeed the main reason for the parlous state of Germany's armed forces, the Bundeswehr ("Outgunned", July 28th). Nevertheless, although Germany spends just over 1% of its GDP a year on defence, this still represents a significant budget, especially for a non-nuclear power. At over €40bn (\$46bn), it is not far short of either Britain's or France's. Yet, it has fewer capabilities than either.

Moreover, in order to address shortfalls, the German army is implementing a system of deep integration with the Netherlands and now fields three German-Dutch divisions. On paper, the German army is bigger and more capable than it would be without the Dutch forces. The determination of German and Dutch soldiers to make this experiment work is admirable. However, recent multinational experiences suggest that this level of interoperability simply increases political, military and professional friction, ultimately vitiating the very operational capability which it was supposed to augment. The German army may, unfortunately, be even weaker than it appears.

ANTHONY KING
Chair of war studies
University of Warwick
Coventry

Although a general awareness of the emerging threats to security has, as you say, increased throughout Sweden, this has not translated into stronger defence. A report by the Swedish Armed Forces found that recent appropriations did not cover the rise in salaries and equipment costs, much less any improvement to military capability. To stay within budget, the armed forces have implemented austerity measures, which will decrease combat readiness in all but a few elite units. The report describes current defence policy as counterproductive in trying to achieve the government's goals by 2020.

In other words, Swedish defence capabilities are

decreasing. If the parties in charge after next month's election truly wish to boost defence, their actions need to extend beyond distributing leaflets. Foreign invasions are not stopped by printed matter.
MARCUS DANSARIE
Stockholm

The father of economics

I would like to correct some mystifying errors in your review of my book on the life and impact of Adam Smith ("An enlightened life", July 28th). You suggest that, amid 53 pages of notes and bibliography, I fail to refer to an article from 1994 on "the invisible hand" by Emma Rothschild, and to other works by Amartya Sen. Alas, this is Oxbridge undergraduate nit-picking, and it is also untrue. Ms Rothschild's article was extended in a later book, which I cite; I touch directly on her (idiosyncratic) interpretation on page 172; and there are six references to Mr Sen in the text, with numerous citations. Indeed, Mr Sen kindly wrote a glowing endorsement of the book, which would be unimaginable if it failed to engage with his work or that of Ms Rothschild, his wife.

You also chide me for failing to deal adequately with criticisms of Smith. The book itself stands as a rebuttal of many critics. But chapter six specifically addresses, in pretty unsparing terms, the key questions of originality, errors and omissions in Smith's writings.

Unlike other works, the entire second half of my book is devoted to Smith's impact today, in economics, free trade, social psychology, culture and crony capitalism. Adam Smith deserves better, especially from *The Economist*.

JESSE NORMAN
Hereford

The pull of the Moon

The Moon may not have brought about life on Earth ("Empty sky, empty Earth?", July 7th). But the Moon may have contributed to the movement of life from sea to land. The Moon's gravity produces

Earth's tides, and the tides create intertidal zones, transitional areas on the margin between land and sea. It is hard to imagine life, especially animal life, making a direct leap from a wet environment to a dry one. But intertidal zones offer an evolutionary way-station, courtesy of the Moon.

SCOTT MCINTOSH
Chevy Chase, Maryland

Voter issues

Regarding the finding that men's politics are determined by a supposed "status threat" from women ("Sometimes it's hard", July 21st), I have been a registered Democrat for nearly 50 years. As a straight, white man who happens to eat meat most days, owns a firearm and believes in the existence of God, I am assumed by the more vocal members of today's Democratic Party to be a racist, sexist, homophobic, superstitious gun-nut who doesn't give a damn about his carbon footprint. I am, in fact, none of the above.

I and many of the men I worked with had wives who made more money than they did. They were, to a man, happy about the extra income. If men are voting Republican, it is not because they feel threatened by women. The Democratic Party, which used to stand for working men and women, now views half those workers with thinly veiled contempt. That, and not the Russians, is what got that pernicious buffoon elected.

LARRY WHEELER
Lexington, Kentucky

In the army now

You omitted the most important benefit for compulsory national service ("Fall in, or halt", July 7th). Citizen armies make a population, in general, more informed and opinionated about their country's conflicts. Parents, siblings and friends of would-be conscripts have a vested interest in the knowledge that their son, friend, sister or brother could be put in harm's way. It is what ended the Vietnam war. I am

not a proponent of a draft, but if there were one, we would have been out of the Middle East long ago.

BILL FALCONER
Boulder, Colorado

China has a hissy fit

Japan and South Korea are not the only countries to feel the brunt of carefully calibrated Chinese consumer boycotts ("War is peace", July 14th). China imposed an extensive diplomatic and commercial boycott on Norway from 2010 to 2016, as punishment for awarding the Nobel peace prize to Liu Xiaobo, a dissident who died last year. China will act without mercy when a country is deemed inconsequential to its own growth.

PEDER HANSSEN
Oslo

It's not a lie if you believe it

Reading Buttonwood's article on the wisdom of George Costanza (June 9th) reminded me of the time I worked at a stockbroking firm in the City. It was shortly after the Big Bang and the trading floor was a hive of activity and noise. One phone on the trading desk was for a particularly prominent client, who would call each morning to hear the firm's buy or sell recommendations. He would then proceed to place orders with us, but to do the exact opposite of that advice.
RONAN CUNNINGHAM
Boston ■

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
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Location: Kuala Lumpur, Malaysia

Contract Type: Fixed Term (3 years)



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Applications, which include a curriculum vitae and a recent passport-size photograph should be submitted to gstison@seacen.org; Jittapap@bot.or.th; Weeramop@bot.or.th by 10 September 2018, addressed to:

The Chairman SEACEN Board of Governors, The SEACEN Centre, Level 5, Sasana Kijang Bank Negara Malaysia, 2, Jalan Dato' Onn, 50480 Kuala Lumpur
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*The closing date for all applications is **August 28th, 2018**. Short-listed candidates will be contacted for interview.*



On firmer ground

Beloved of liberals and economists, land-value taxes have never caught on. The time may now be right

ON A trip to New York in the late 1860s the journalist Henry George was puzzled. He found the rapidly growing city to be a place of unimaginable wealth. Yet it also contained deeper poverty than the less-developed West Coast. How could this be? George had an epiphany. Too much of the wealth of New York was being extracted by landowners, who did nothing to contribute to the development of the city, but could extract its riches via rents. The problem could be solved by a tax on land values.

George's subsequent masterpiece, "Progress and Poverty", sold more copies in America in the 1890s than any other book except the Bible. It spawned campaigns for land-value taxation around the world. It also inspired a board game, "The Landlord's Game", a precursor to "Monopoly". The game was designed to show how property markets naturally tend towards monopolies in which one player can extract all the rent. But an added feature, missing from subsequent versions, was a tax on the value of land—ie, a levy that, unlike a property tax, does not vary with the number of houses or hotels built on it. The tax made it impossible for any one player to win but instead made them rich in tandem, as the proceeds of the tax were distri-

buted between them.

A land-value tax might seem like an enticing prospect to those harmed by high land values today. Unremitting demand in rich cities has sent land values in and around them soaring, after decades of falling interest rates. Plenty of poverty persists in these places. But the issue of high rents—and wealthy landlords—has renewed political bite because it is now affecting the relatively well off, too. Rent is so expensive in places such as San Francisco's Bay Area that even technology workers earning hundreds of thousands of dollars a year complain that life there is unaffordable.

'twas God who made the land

Across the rich world a bitter generational divide has opened between homeowning baby-boomers and "generation rent". Many older people have become rich as house prices have surged (see Finance section). But most young people cannot hope to buy houses in places such as London, unless they benefit from a big inheritance. Because they assume house prices will go on rising, they feel they are missing a golden ticket to financial well-being, while landed oldies continue to enjoy the windfall of a property boom. The time seems ripe for a revival in Georgist thinking.

Taxes on land have long had a magnetic attraction for liberals and economists. Their appeal has two roots. The first is fairness. Every person, it is argued, has an equal moral claim to the fruits of the earth itself. In the history of political thought, even the fiercest advocates for property rights have struggled to justify how legitimate ownership of land could first come about, given that it deprives others of a natural resource. "God gave the land to the people," goes "The Land", a Georgist anthem adopted by Britain's old Liberal Party that is still sung at the annual meeting of its successor, the Liberal Democrats.

The most famous attempt to justify land ownership was made by John Locke in the 17th century. He argued that because people own their own labour, toiling on the land confers ownership rights over the resulting product (a farm, say). Yet even Locke said this only works as long as there was "enough, and as good, left in common for others". This proviso may be met in a wilderness but not in booming cities. In any case, such a combination seems a shaky justification for acquisition. Robert Nozick, a 20th-century libertarian philosopher, doubted whether pouring his can of tomato juice into the sea, combining the two, meant that he could then claim ownership over the ocean. Without a good basis for land ownership, how can it be fair for landlords to get rich from rent?

The second appealing feature of land-value taxes—and the one that entices economists—is their efficiency. Typically, taxing a good lowers supply and raises prices. Income taxes cause people to work less or exert less effort. Taxes on alcohol deter drink- ▶

ing. Taxing property values as a whole discourages development. But land is different. Its supply is fixed and cannot go away. As a result, as long as landlords are competing with each other for tenants—whose numbers and willingness-to-pay are unaffected—the tax cannot, in theory, be passed on through higher rents. Landlords must simply pay up and carry on as before. In 1978 this efficiency led Milton Friedman, a celebrated free-market economist, to declare a tax on the unimproved value of land “the least bad tax”.

So taken was George by the arguments for land taxation that he thought the state should confiscate all land rents. Nobody would be allowed to profit from land ownership. He thought this would raise enough revenue to all but abolish other taxes. His campaign for “the single tax” suited George who, like Friedman, advocated free trade and free markets throughout the rest of the economy.

No Georgist era

Yet despite George’s fame and influence, “Progress and Poverty” did not lead to widespread adoption of land taxes. In Britain a type of land tax was stripped from the radical “people’s budget”, passed in 1910 under a Liberal chancellor of the exchequer, David Lloyd George, after landowners in the House of Lords objected. In subsequent decades Georgist ideas were left behind on both sides of the Atlantic. The trade-union movement was more concerned with rights for workers than land rents. Policymakers focused on attacking excess profits accruing to shareholders, notably those arising from the market power of vast firms like Standard Oil.

After the second world war, reformers focused on building social-welfare programmes such as health-care and public-pension schemes. Land-value taxes rarely surfaced. Today, although most economists will acknowledge their efficiency, such taxes have been implemented only in a handful of places. The norm is a property tax, levied on the total value of the land plus what is built on it. Henry George is no

longer a household name.

One reason is that land-value taxes are hard to implement. Land is difficult to value. Its price is not recognised directly when property is sold. It must be estimated by subtracting the value of the buildings from the sale price. Such a calculation is inevitably controversial, argues Paul Sanderson of the International Property Tax Institute, an advisory body. People would complain about a tax levied on a hypothetical number. Where possible, they would mount legal challenges against it.

A score of cities in Pennsylvania, where George was born, levy so-called split-rate property taxes. These involve one rate on building values and another, typically higher, on land. But valuation is done locally by “somebody’s Uncle Charlie” and systems are “primitive”, says Joshua Vincent of the Centre for the Study of Economics, a Georgist think-tank in Philadelphia. Mr Vincent was once asked to design a land tax based on valuations dating from 1957. Politicians do not like revaluations because they lead to higher tax bills and grumpy constituents. But arbitrary, decades-old valuations also make split-rate taxation a hard policy to sell.

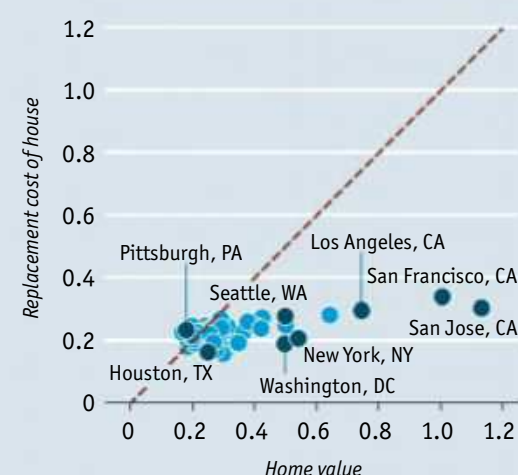
The problem of valuation is not insurmountable. “I don’t think it’s a difficult task at all,” says Arthur Grimes of Victoria University of Wellington. New Zealand allows most local authorities to levy land-value taxes. Valuations are carried out every three years by the central government, which collects a vast array of data on the characteristics of every property, from when its roof was replaced to whether or not it has a sea view. This allows statisticians to predict land values to a high degree of accuracy, says Mr Grimes.

Opponents also raise questions about land-value taxes’ fairness and viability. First fairness. A land-value tax would not make much of a dent in wealth inequality. Matthew Rognlie, now of Northwestern University, showed in 2015 that the increase in capital’s share of national income in the latter half of the 20th century—lamented by Thomas Piketty in his book, “Capital in the Twenty-First Century”—has been driven by higher returns to housing. Yet while home ownership constitutes a big chunk of wealth for middle-class households it is far less important for richer ones, says Gabriel Zucman of the University of California, Berkeley, who is one of Mr Piketty’s co-authors (see chart 1). In America the top 0.1% holds four-fifths of its wealth in equities and bonds. Higher wealth inequality has little to do with housing, says Mr Zucman. The pattern is reflected elsewhere in the rich world.

Land ownership is less concentrated among a small number of wealthy landowners than it was in George’s day. That means a land-value tax would almost certainly be less progressive than modern in-

Plot twists

United States, average home value and house replacement costs, 2016, \$m



Source: BuildZoom

come tax. Another change is that land constitutes less of the total stock of capital than it did at the end of the 19th century. In 2015 William Larson, a statistician in the Commerce Department, estimated that all the land in America was worth about \$23trn in 2009 (160% of GDP). This compared with a total capital stock of about \$45trn. Since then land has probably appreciated significantly. Yet even if the government were able to realise George’s dream and capture all this economic value, it would not be able to fund the government for very long after it had paid off the national debt.

Get off my property

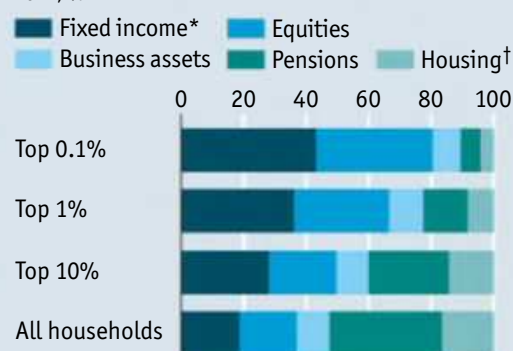
As for effectiveness, there are several drawbacks. Voters dislike any sort of property tax. In California Proposition 13, a ballot measure passed in 1978, restricts taxes to 1% of a property’s value, and limits increases in the reassessment of a property’s value to 2% a year. Reassessments are also usually prohibited unless a property changes hands, creating a pernicious incentive for owners to stay put. In England and Scotland taxes on residential property are based on a valuation from 1991. Land-value taxes are common in Australia, but residential property is mostly exempt.

Sceptics argue that places with land-value taxes keep them low so that they do not attract political heat. New Zealand collects property taxes, including land taxes, totalling around 2% of its GDP, similar to the average in the OECD, a club mostly of rich countries. But America collects more property taxes (2.7% of GDP) and Britain much more (4.2%). Even in New Zealand, the recent trend has been for local authorities to increase the rate levied on buildings, and lower land taxes. In Denmark, another country with local land-value taxes, rates vary from 1.6% to 3.4%. It is a far cry from the single tax George wanted.

Opponents of high land-value taxes worry that homeowners who are rich on paper may not have large bank balances or incomes with which to pay another levy. ▶▶

Home economics

United States, composition of household wealth 2012, %



Source: “Wealth inequality in the United States since 1913” by Emmanuel Saez and Gabriel Zucman

*Net of non-mortgage debt
†Net of mortgages

► Governments can get around this by letting landowners defer their tax bills until their property is sold, perhaps on death. Denmark is reforming its land tax to allow a deferral. That, though, will still frustrate property owners who wish to pass on housing wealth to their heirs, a deep desire in the Anglo-Saxon world. In 2015 Britain's government even created an inheritance-tax exemption specifically for houses.

A land-value tax would do little to change the underlying shortages that have driven up property prices. Contrary to the claims of some Georgists, it would not much change the incentive to develop or sell valuable land, argues Stuart Adam of the Institute for Fiscal Studies, a think-tank. Owners of vacant plots in pricey areas would indeed face the same costly levy as owners of adjacent tower blocks. They would have to pay the tax somehow, and a landlord short on cash may have to sell the plot. But there would be no change in incentives for owners with deep pockets, such as property-development firms. Lower land values would exactly offset the fresh incentive to sell vacant land. Meanwhile the forgone rent from letting a plot lie vacant would remain the same. However, revenues from the tax could be used to cut conventional property taxes, which do deter building. This would not help much in rich cities where the main constraint on new building is regulatory, says Enrico Moretti of the University of California, Berkeley. But it might help rejuvenate areas that are otherwise in decline.

For instance, in the late 1970s Pittsburgh raised the tax on land values to more than five times the rate on structures. A study from 1997 by Wallace Oates and Robert Schwab credits this with sparking a flurry of commercial-property development even as the city's steel industry declined. The handful of Pennsylvanian towns which have since adopted pure land-value taxation were generally in decline and did so in order to encourage building, says Mr Vincent. The Hawaiian building boom of the late 1960s that led Joni Mitchell to sing that the state had "paved paradise to put up a parking lot" may have been partly prompted by the introduction of a split-rate system of property tax in 1965.

Big yellow taxes

Perhaps the biggest obstacle to land-value taxes comes from the dark side to its efficiency. The moment the tax is announced land values should fall, because buyers know that once they own the land, they must pay up. Land depreciates by precisely the present value of all the taxes it will incur in future. This is not only theory. A Danish government study from 2016 found that changes in land-tax rates were fully and quickly capitalised in house prices. As a result, the taxes harm only today's landowners. They are like a windfall tax or a confis-

cation of property—and, like any such levy, arouse fierce political resistance.

Yet, after decades of gains for those who have bought property in areas where values have soared, might such a windfall tax be desirable—and fair? In 2017 David Albouy and Minchul Shin of the University of Illinois and Gabriel Ehrlich of the University of Michigan, estimated that as of 2006, just five metropolises accounted for nearly half of all urban land value in America. Landowners' gains have been society's losses, because the shortage of land in such places constrains economic growth. America's GDP would be fully 9% higher were regulatory limitations on building relaxed in just three cities—San Francisco, San Jose and New York—according to research by Chang-Tai Hsieh of the University of Chicago and Mr Moretti.

One of George's arguments for confiscating land rents was that landlords do not deserve the gains they accrue when others invest in an area. This was echoed by Winston Churchill, then a Liberal, in support of the "people's budget". "Roads are made, streets are made, services are improved, electric light turns night into day, water is brought from reservoirs a hundred miles off in the mountains—and all the while the landlord sits still," he thundered. The argu-

ment emphasises the potential for landowners to benefit at the taxpayer's expense. There is lots of evidence that local house prices rise when taxpayers provide, say, better transport links.

Landowners in today's successful cities have surely profited from public investment, but the bulk of their gain has come from an explosion of private economic activity. Around finance and technology hubs, returns to land ownership have been enormous. In the Bay Area city of San Jose, even as the median household income, not adjusting for inflation, roughly doubled between 1996 and 2016, the average house price rose by a factor of 3.7.

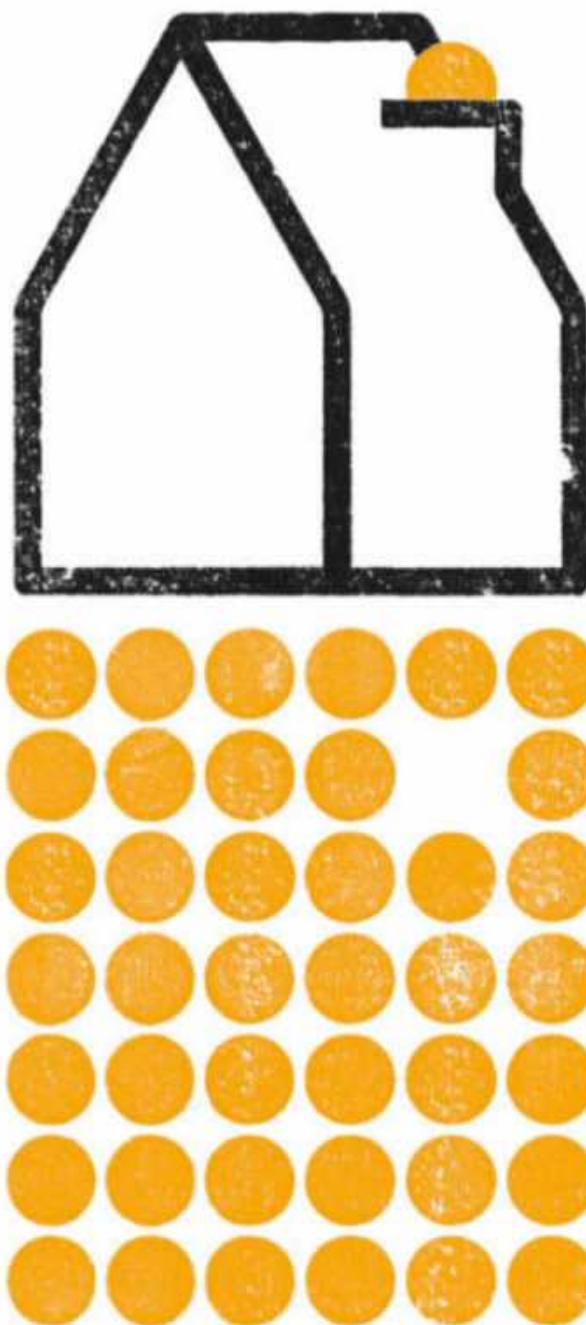
Land prices account for the bulk of the rise. Analysis by BuildZoom, a price-comparison website for contractors, finds that construction costs vary much less across cities than house prices (see chart 2 on previous page). Rising land values explain 80% of the rise in rich-world house prices between the end of the second world war and 2012, according to research by economists Katharina Knoll, Moritz Schularick and Thomas Steger.

For ascendant technology firms, intellectual property and other intangible forms of capital are more important than land. Alphabet, the parent company of Google, owns real estate worth \$23bn before accounting for depreciation. That compares to a stockmarket value of over \$850bn. Even Amazon, with its network of warehouses, owns land and property worth only \$24bn. Despite their lavish West Coast offices, a land-value tax would not hit these tech titans hard.

Clicks and mortar

Yet modern firms do have extraordinary power to influence land values, thereby giving immense windfall gains to landowners. Later this year Amazon is due to announce the site of its second headquarters. Cities have been competing to attract the firm. But local residents who do not own property could be forgiven for hoping that Amazon goes elsewhere. Its headquarters will employ perhaps 50,000 rich workers, who will bid up rents and land values, all the while crowding local public services and infrastructure. The chosen city will need to invest to accommodate the workers, but the costs of doing so will be unfairly spread across existing residents, because in their bid to lure the firm, cities are offering Amazon discounts on local business taxes.

Arguably the biggest winners from Amazon's decision will be local property owners. Were their windfall gains spread around, local renters would have nothing to fear. A substantial land-value tax would do the job. Whatever the political obstacles to land-value taxes, the power of this argument in their favour remains as decisive as it was a century ago. ■





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The Labour Party

The surreal strength of Jeremy Corbyn's party

A party at war over anti-Semitism, failing to hold a weak government to account and ducking the biggest political issue is still in reach of power

IF AN opposition MP were asked to come up with an ideal backdrop for the parliamentary recess, he would surely set out the month just endured by Theresa May. Two senior cabinet ministers resigned. Support for the prime minister's Brexit plans dropped like a stone. Grassroots Tories started baying for her head. A tired government looked close to exhaustion.

Yet even as the government creaked, it was Labour that seemed the more likely to splinter. A row over anti-Semitism entered its most poisonous phase, with the shadow cabinet in open revolt against Jeremy Corbyn, Labour's far-left leader. A summer meant to be spent discussing big ideas for a future Labour government and hammering Mrs May's record has instead been overtaken by a bitter internal fight.

Despite it all, Labour still has a decent chance of forming the next government. None of its self-inflicted wounds is fatal and each has a potential fix. Its poll numbers, which at around 40% are slightly ahead of the Tories', have held up. Labour resembles a drunk falling down a staircase, cracking his head on each step, only to gather himself up at the bottom and somehow stagger on.

Anti-Semitism has brought the sharpest blow during this drunken descent. Labour has added the definition of anti-Semitism

by the International Holocaust Remembrance Alliance (IHRA) to its code of conduct, but omitted some of its suggested examples. The party insists that this is to allow legitimate criticism of Israel. Yet many Labour MPs, as well as Jewish groups across the country, virulently disagree, accusing Mr Corbyn of turning a blind eye to offensive statements made by his own allies about Israel that crossed into anti-Semitism. Margaret Hodge, a long-serving and respected backbencher with a Jewish background, has labelled Mr Corbyn a "racist" and an "anti-Semite". But rather than put out the fire, Mr Corbyn's allies poured petrol on it. Ms Hodge found herself being investigated by the party.

This is a strange hill for the leadership to plant its flag on. In other areas Mr Corbyn has shown remarkable ideological flexibility. The long-standing critic of NATO has gone quiet. The former vice-chairman of the Campaign for Nuclear Disarmament campaigned on a manifesto pledge to maintain Britain's nuclear deterrent. Yet when it comes to anti-Semitism, the campaigner for Palestinian rights has reached his limit.

It took a shadow cabinet rebellion and two weeks of public outcry before proceedings against Ms Hodge were dropped. The code of conduct has at last been put

out for consultation with Jewish groups. Many shadow ministers are demanding that the IHRA definition be included in full, including its examples. There is a chance of a U-turn, particularly as those around Mr Corbyn demand an end to the war.

Chief among those calling for peace is John McDonnell, the shadow chancellor and a close ally of Mr Corbyn's. Their approaches reveal different perspectives. Before being catapulted into the leadership, Mr Corbyn spent three decades as a placard-waving MP in Islington, lending his name to causes such as fighting against apartheid and for Palestinian solidarity. By contrast, Mr McDonnell spent his early career running things. He was an important figure in the left-run Greater London Council in the 1980s, overseeing a budget that ran into the billions in his early 30s. "John is a machine politician," says one MP. "Jeremy is a protest politician." For a man desperate to be painted as a chancellor in waiting, internal fights are a decidedly unwelcome distraction.

The sucking sound

Big policy initiatives have already been suffocated by the anti-Semitism row, much to the chagrin of Mr McDonnell, who tightly controls Labour's economic programme. A promised experiment on universal basic income was announced but generated little coverage next to the torrent of news over the party's position on Jews. Nor is Mr McDonnell alone. Jon Lansman, who founded Momentum, a 40,000-strong far-left grassroots organisation that supports Mr Corbyn and is himself Jewish, tweeted: "If only [Labour] could find a way of not having to spend so much time on certain other things, attacking the Tories might ac- ►►"

▶ tually be quite productive.”

Even without its self-inflicted blow over anti-Semitism, Labour has struggled to land punches on the government. A weak shadow front bench has let the Tories escape censure for a recent jump in violent crime and a bungled introduction of universal credit, a reform of the welfare system. Not all of the backbenchers who are long-standing critics of Mr Corbyn are political giants. Some were insignificant junior ministers in the dog days of Gordon Brown's Labour government. Yet few would argue that today's front bench, where loyalty too often trumps talent, represents the best that the party has to offer.

On Brexit, Labour demonstrates a calculated cowardice. Sir Keir Starmer, the shadow Brexit minister, has gradually shuffled the leadership into a softer position, promising to stay in a customs union with the European Union, for instance. But Mr Corbyn is a Eurosceptic who voted against every EU treaty as a backbencher and whose pro-Remain campaigning in the referendum was tepid at best. Even so he leads a party whose MPs, members and voters are overwhelmingly pro-European. Support is starting to build behind a push for a “People's Vote” on any Brexit deal, which could offer a neat way of squaring this circle without permanently alienating Labour's Leave-supporting minority. But such a radical idea risks being buried by the internal fight over anti-Semitism.

Threats by anti-Corbyn MPs to quit and create a new party have, so far, proved empty. It requires heroic optimism to believe that a cabal of former shadow ministers from the reign of Ed Miliband, the previous leader, could succeed where Roy Jenkins, the most influential home secretary of the 20th century, failed in the 1980s. “Some of them are that stupid,” comments one old party hand. “You can never rely on people not being that stupid.”

But most of those who hate Mr Corbyn have no intention of leaving. Ms Hodge spoke for many when she pledged to stay, even before the investigation against her was dropped. “I am going to fight tooth and nail to bring [Labour] back to the values that brought me into it,” she promised. Politics is tribal. MPs are loth to quit just because they do not like their chief—even if they think he really is an anti-Semite.

This means that Mr Corbyn should be strong enough to shift ground. A reversal on the IHRA wording would heal most remaining wounds. Allowing former rebels into the shadow cabinet would help the opposition to harass the government. Softening further on Brexit would do little to alienate Labour voters. Mr Corbyn has total control of the party machinery. He has the lure of power in front of him as an incentive to keep going. If he can only rediscover his ability to compromise, he may yet end up in control of a government. ■

Welfare policy

Poor economics

Benefit sanctions are not nearly as helpful as their supporters claim

MORE than half Britain's jobcentres now offer “universal credit”, which merges six working-age benefits into one. Most discussion of universal credit, which will eventually offer payments to one in four households, has been about its botched rollout. Less attention has been paid to its tough sanctions regime. Those who fail to comply with requirements that include spending 35 hours a week job-hunting may see their benefits docked. In America, where there is talk of tightening conditions for receiving food stamps, reformers are looking at the British experiment with interest.

Sanctions of some sort have existed in Britain's welfare system for centuries. Under the Poor Law of 1834 the only way to obtain “relief” was in theory to enter a workhouse. Workhouses were abolished in 1948, but other forms of sanctions have been toughened up. The sanction rate rose in the mid-1980s, when Margaret Thatcher's government began supervising job-seekers' efforts more closely, and it continued to climb under New Labour.

From 2010 the coalition government enforced sanctions more vigorously still. Under universal credit, claimants who have received several sanctions are often made to serve them one after the other, rather than concurrently, as under the old system. Research by David Webster of Glasgow University suggests that the sanction rate for jobless universal-credit claimants is twice the rate for jobseeker's allowance (JSA), the old unemployment benefit.

Supporters of benefit sanctions say

tough love pays off. The unemployment rate is around 4%, a four-decade low. But the circumstantial evidence cuts both ways. Unemployment was half as high in the relatively lax 1950s. And stories abound of claimants failed by the system. Advisers in jobcentres appear to enjoy wide discretion in the application of sanctions, so those who take a dislike to particular claimants may punish them. In 2013 a hard-of-hearing man claiming JSA was sanctioned for four weeks after being ten minutes late to a CV-writing course. The man had wrongly heard that it started at 11:50am, not 11:15am.

Crunchy evidence on sanctions is hard to come by. Some research has ascribed the fall in long-term unemployment in the second half of the 1980s to the Thatcher reforms. That argues in favour of imposing some requirements on the jobless. But the government has published little research on the impact of the tightening since 2010, despite sitting on a mound of data.

A new paper in the *Cambridge Journal of Economics* offers a pessimistic assessment. Focusing on the period from 2001 to 2014, it finds that sanctions under JSA increase the flow of people into work—but only in the short run. It may be that claimants, fearful of having their money cut off, take the first job they find, which turns out not to suit them. This also suggests that they may be taking jobs which do not pay as well as they might. In a speech last year Michael Saunders of the Bank of England drew a link between tough welfare rules and recent low wage growth.

As the evidence builds, the government may at some point have to tweak its approach. A recent study by Rachel Loopstra of King's College, London, and colleagues, finds some correlation between tougher benefit sanctions and a rise in the use of food banks. A government that tones down sanctions would doubtless be accused of going soft. But it would have the evidence on its side. ■



The evolution of welfare

Brexit in the Caribbean

Beaches and borders

The tiny British island of Anguilla worries about Brexit

FEW Britons have heard of Anguilla. Yet the tiny Caribbean island, home to around 14,000 people, is proud to be a British overseas territory. In the 1960s its islanders successfully staged a bloodless rebellion to stop Britain granting them independence as part of St Kitts & Nevis, around 60 miles to the south. Today they style themselves as the only place to have “fought Britain to remain British” and loudly trumpet their links to London. But like other far-flung relics of empire, Anguillians often complain that they are overlooked. Since the Brexit vote their grumblings have grown louder.

The islanders say they rely heavily on the European Union and on nearby islands owned by France and the Netherlands. Anguilla's airport does not have a runway long enough for big jets, which makes it dependent on the French and Dutch halves of neighbouring St Martin. Although tourism makes up a big chunk of Anguilla's economy, nearly all visitors must first fly to the Dutch half of the island and then travel overland through the French half before catching a ferry for the last leg. Letters and parcels take the same route. Meanwhile, Anguillian patients pop back and forth to receive specialist treatment not available at home. And in 2016 a third of the island's capital budget came from the EU's development fund.

Blondel Cluff, Anguilla's representative in London, worries that Brexit could disrupt all this. “We can't survive without the French and the Dutch,” she claims. But Westminster has given Anguilla's post-Brexit predicament little thought. Some of the civil servants her team encounters do not seem entirely sure where Anguilla is. Worried by this, they have set out their own proposals for a customs union and common travel area with St Martin.

The island was among those hit hard by Hurricane Irma in September 2017. It is still getting back to its feet. The storm badly damaged Anguilla's sole hospital and its only secondary school. Around 90% of houses on the island were affected and all transport links were cut. Although Britain's emergency response was swift, many complain that reconstruction funds were slow to arrive. Before the summer holidays, many classes were still taught in living rooms volunteered by locals.

The Anguillian government worries that, without proper planning, a Brexit-induced rupture could add to the island's

woes. Foreign Office diplomats, though, dismiss many of the islanders' concerns, insisting that Anguilla is not as dependent on EU funding as it claims. Although the islanders say that trade with St Martin is vital to their economy, officials point out that supermarket shelves are in fact stacked with American imports.

Anguilla is not alone in its Brexit fears. Bermuda, the British Virgin Islands and the Cayman Islands all provide financial services to the EU (though some claim it would be no bad thing if these notoriously shady tax havens were cut out). The top destination for exports from the Falkland Islands is Spain, which has a taste for Argentine squid. It is not clear whether the Falklands will retain tariff-free access to this market once Britain leaves the EU. And Gibraltar, the only one of Britain's 14 overseas territories that is technically part of the EU, worries that its close links to Spain may suffer.

Faced with such fears, the Foreign Office insists that Britain's overseas territories will not be any worse off after Brexit than Britain will be. But for Anguillians, that is hardly reassuring. ■

English schools

In, out, in, out

Why growing numbers of new teachers are jumping ship

WHEN Ewa began looking for jobs, she did not plan to leave the country. She now works as a modern-language teacher at a private school in Dubai, earning three times what she did in London. Perks include free flights home, accommodation, private health insurance and even a furniture allowance. Five years after qualifying as a teacher she is head of her year. Would she return? Her “heart beats for London” but living there “on a teacher salary can be really difficult”, so not soon.

Schools are struggling to recruit enough teachers to deal with a demographic bulge. Yet they are also doing a bad job at keeping those they manage to attract. Among teachers who qualified in 2011, 83% were still in the state sector two years later. ►►

Brexit and public opinion

No confidence

Growing doubts about the government's handling of Brexit negotiations

THERESA MAY and several of her cabinet ministers have been on a charm offensive around Europe, trying to sell her Chequers plan for Brexit to doubtful European Union governments. Most recently the prime minister bearded Emmanuel Macron in the French president's Fort Brégançon holiday retreat in the south of France. Like most EU leaders, Mr Macron is sceptical about the Chequers plan. He is also unwilling to side-step the EU's chief Brexit negotiator, Michel Barnier, who has already rejected several of its central elements.

At the same time Mrs May has a huge challenge selling Chequers at home, both to MPs and to the public. The most recent opinion survey from ORB, an international pollster, finds that 76% of respondents disapprove of the government's handling of the Brexit negotiations, the highest number so far and a big jump since the Chequers plan was proposed. Fully 60% of respondents expect the prime minister not to get the right Brexit deal, and 44% think Britain will be worse off economically. Little wonder that talk of leaving with no deal has grown.

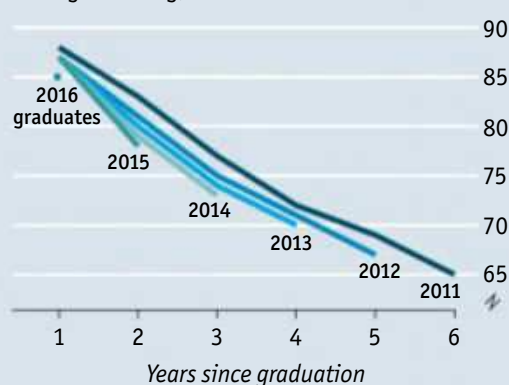
Chorus of disapproval

Britain, % responding, “Do you approve or disapprove of the way in which the government is handling the Brexit negotiations?”



School's out

England, teachers still in a state school after graduating, %



Source: Education Policy Institute

► Among those who qualified in 2015, just 78% were (see chart). Failing to retain teachers is a problem in itself, but it also points to other issues bedevilling English education.

The most obvious is pay. In September classroom teachers will receive their first above-inflation pay rise since 2010. Meanwhile private-sector wages have grown, so the pay cut taken, in effect, by some teachers (such as those with degrees in physics and economics) has grown too.

But money is hardly the only reason why teachers are leaving. According to research by the National Foundation for Educational Research, teachers on average take a 10% pay cut when they quit and 51% stay in education in some form. That leads many to think that a big part of the problem is the job itself.

A small number of schools shoulder an outsized share of the blame. Sam Sims and Rebecca Allen, economists at the UCL Institute of Education, have identified 122 schools that burn through young teachers, each losing more than three times the average number of newly qualified teachers in 2010-14. In their book, "The Teacher Gap", they write that the schools "are essentially sausage machines, efficiently grinding the fresh meat from teacher training programmes into a grisly paste."

But in most schools the job of teaching takes up more time than it did. Ed Richardson of Keystone Tutors, a London-based firm, reports that the offer of a more manageable workload is a key factor in persuading teachers to become tutors. According to the OECD, a club of mostly rich countries, only teachers in Singapore and Japan work longer hours than those in Britain. British teachers also spend an unusually large proportion of their time dealing with bureaucracy.

Mr Sims suspects that changes to the inspection system are the main explanation for a rise in paperwork. A reduction in the number of inspectors used for school visits means that the burden for collecting information increasingly falls on schools. And since 2010 the penalties for a bad inspection have become more severe.

All teachers suffer from more form-fill-

London's Koreatown

Peninsula politics

Nuclear proliferation is a surprisingly hot topic in New Malden

AS DINERS devour their scorching portions of *bibimbap*, with paintings of South Korea on the walls, visitors might think they are in Seoul. But this is New Malden in south-west London. More than 10,000 South Koreans have lived in "Koreatown" since a first wave came in the 1970s. Now they jostle with migrants from farther afield. Over the din, sounds of Mandarin emerge from the kitchen. One waitress is a Chinese-Korean from Liaoning, a province next to North Korea. The chef is from South Hamgyeong, in the north-east of North Korea. She speaks Mandarin at work, as "it's the only way to communicate with the Chinese-Koreans."

The big divide in Koreatown used to be between traditional old-timers and the more liberal young. One South Korean calls New Malden "more conservative than Seoul". "Women stay at home, their kids have to do what they are told to do, they have to go to university," he says. Koreatown, which comprises three or four streets filled with restaurants, food markets and travel agents, has stuck with old values that are eroding in Seoul.

Now new divisions are opening among South, North and Chinese-Koreans. Some 600-800 North Koreans live in Britain, reportedly the biggest diaspora outside Asia. Many came via China. Others arrived after living in South Korea. Although Seoul seems glamorous at first, northerners can find it hard to fit in. Because they are Korean, they are expected to act Korean. But the culture of communist North Korea is very different from freewheeling South Korea. To escape stigmatisation, some move on again.

Tensions can flare in Koreatown. "South and North Koreans try to get along, but there are good and bad people everywhere," says one North Korean. Another says that, when having her first meal at a Korean restaurant in Britain, the South Korean waitress recognised her accent and suggested she have leftovers, which she would be more used to eating

at home. And then there are Chinese-Koreans, known as *Joseonjok*. One issue between North Koreans and *Joseonjok* is the asylum system. Many *Joseonjok* falsely claim to be North Korean to improve their chances of winning asylum. North Koreans resent this as it risks genuine refugees being rejected. In 2013 some 30 applications by people claiming to be from North Korea were turned down.

Imported political disputes are another source of friction. Many South Koreans approve of President Moon Jae-in's engagement with the North, but some North Korean exiles see it as siding with the enemy. "Moon Jae-in told the world he was a human-rights lawyer when he visited the White House," says one North Korean. "But now he has stopped the work of human-rights activists," banning the sending of leaflets to the North touting the benefits of freedom. As for Donald Trump's meeting with Kim Jong Un, "all hope was lost," she adds. The future of north-east Asia is being watched closely in south-west London.



Seoul survivor

ing. But for new ones, who need time to get to grips with the rest of their job, it is an even bigger problem. Unlike other professions, teachers are expected to meet the same standards no matter how long they have been working, notes Matthew Hood of the Institute for Teaching, a graduate school. They are not helped by the fact that teacher training often focuses on theory, rather than on the basics of the job.

None of this would matter if it were only the weakest leaving the profession. But there is no evidence that this is true, says James Zuccollo of the Education Policy Institute, a think-tank. The result is that more inexperienced teachers enter the classroom and children have to form new relationships. When teachers leave because they are miserable, pupils suffer the consequences. ■

Bagehot | Land of extremes

It's time to rethink everything we thought we knew about British national character



MORE than most people the British pride themselves on being sensible. Others might go in for such silly things as revolutions and theories. Britons prefer pragmatism to ideology, moderation to extremism, continuity to change. Walter Bagehot praised his fellow-countrymen for their “inconsistent moderation”. George Orwell thought that the essence of Englishness lay in continuity. “It stretches into the future and the past, there is something in it that persists, as in a living creature.” George VI once pronounced that “abroad is bloody”.

The notion that the British are above all sensible makes the current state of politics even more confusing. The country has opted for a leap in the dark in the form of Brexit. The Labour Party has elected a dyed-in-the-wool extremist as leader. This week a former foreign secretary, Boris Johnson, compared women who wear burkas to “letter boxes” and “bank robbers”. How could a sensible country get itself into such a frenzy?

One answer is that the British have never been as sensible as they like to think. Their belief is similar to the American one of being rugged individualists or the French doctrine that all are intellectuals: it conceals a more complicated and interesting reality. Probe the component parts of “sensibleness” (continuity, moderation and pragmatism) and they quickly start to crumble.

Britain does a better job than others of keeping up the idea of national continuity. The queen’s guards continue to parade in bearskins regardless of the sweltering heat or the state of Brexit negotiations. But a look at the efficient rather than the dignified arm of government reveals a more intriguing pattern.

A new book by David Edgerton, “The Rise and Fall of the British Nation”, argues that 20th-century British history is really about rupture and revolution. Britain has seen three distinctive political regimes interrupted by periods of turmoil. In 1900 it displayed a combination of laissez-faire politics and manufacturing prowess. Central government spent about 10% of GDP and most of the work of today’s Whitehall was done by local government or voluntary institutions. Britain was the world’s leading exporter of manufactured goods and the leading producer of battle-ships and weapons (both Arsenal and West Ham started life as the works football clubs of giant arms-makers). It was also easily the biggest exporter of energy. No fewer than a million people

worked in the coalmines.

Clement Attlee’s 1945 Labour government preserved the manufacturing prowess but swept away the commitment to small government and free trade. The welfare state was part of a wider strategy of state planning. The coal, rail, steel, gas and electricity industries were all nationalised. Hundreds of thousands of council houses were built. The gentleman in Whitehall assumed gigantic responsibilities for micro-managing the country. Some 80% of the population called themselves working-class, and the share of manufacturing workers in the labour force rose into the 1950s.

Margaret Thatcher’s 1980s government uprooted things yet again, restoring the laissez-faire tradition (up to a point) but turning its back on the country’s manufacturing might. Britain privatised large swathes of its economy, declared “manufacturing” old hat and gambled its future on services, particularly financial ones. The Thatcherite policy was revolutionary not just in its extent of change but in the costs involved. Large parts of the country remain scarred by de-industrialisation and the marginalisation of a once proud working-class culture.

Such radical shifts were made possible because the British are more ideological and less pragmatic than they like to think. Winston Churchill insisted in going back on the gold standard in 1925 despite its putting the real economy on the rack. Margaret Thatcher repeatedly referred to the writings of Friedrich Hayek and Milton Friedman. Tony Blair refused to avail himself of available brakes to migration from eastern Europe in 2004 because he treated immigration as an ideological matter (proof that he was committed to the double liberalism of free markets and progressive values) rather than as a practical issue with costs and benefits that needed to be weighed against each other.

The notion that Britain is an essentially moderate country is just as hard to defend. It is riven with internal divisions and internecine battles: more Hate Island than Love Island. It is home to one of the best systems for elite academic education in the world and one of the worst for vocational education. It boasts one of the most capitalist markets in the City of London and one of the most socialist in the National Health Service. If London has a claim to be a capital of globalisation, Blackpool has one to be a capital of marginalisation, where 26% of women smoke during pregnancy, compared with less than 2% in Westminster, and male life expectancy is nine years shorter than in Kensington.

The new rules

What are the implications of this today? Two stand out. The first is to forget about many of the “rules” of politics that have long been constructed on the assumption of British sensibleness. The commentators who argue that Labour is on a hiding to nothing in advocating making more things in Britain may be just as wrong as when they argued that the party would never elect as its leader such a radical figure as Jeremy Corbyn.

The second is that the British should not expect normal service to return anytime soon. There are reasons for thinking that Britain is embarking on a period of revolutionary change similar to the 1940s and 1980s, a period that could shape the country’s fate for decades. The parallels with previous eras in ideological flux and political turmoil are uncanny. The big difference is that Britain no longer seems capable of producing political leaders worthy of revolutionary times. In place of Attlee and Thatcher now stand Mr Corbyn and Theresa May. ■



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Turkey

How low can it go?

ISTANBUL

American sanctions might be the straw that breaks the economy's back

WHEN members of America's Congress passed the Magnitsky Act in 2012 to pursue Kremlin officials responsible for the death of a Russian whistleblower, and even when they extended it to include foreigners involved in corruption and human-rights violations, few of them imagined the law would ever be used against the government of a NATO ally.

Yet that is precisely what happened on August 1st, when the US Treasury Department imposed an asset freeze on two senior Turkish officials, the ministers of justice and the interior, over their role in the prolonged detention of an American pastor. True to form, Turkey responded by announcing sanctions against two members of President Donald Trump's cabinet. Both sides, including Turkey's president, Recep Tayyip Erdogan, suggested that they would find a way out of the crisis, but the markets seem to think otherwise. The Turkish currency set record lows against the dollar for six consecutive days, while the yield on government bonds reached a new high, threatening to plunge the country's economy into crisis.

Only two weeks ago, Turkey and America were on the brink of an agreement that could have paved the way for progress on a range of tricky issues. Turkey was to release the pastor, Andrew Brunson, who had languished in prison since his arrest on farcical terrorism charges in late 2016, while America would allow Hakan Atilla, a Turk-

ish banker convicted of violating the embargo against Iran, to serve the rest of his sentence at home. The deal reportedly collapsed after Turkey's foreign minister upped the stakes, asking American officials to kill any investigation into Halkbank, the state bank for which Mr Atilla had worked. Instead of being set free, Mr Brunson was transferred to house arrest.

Given the exasperation with Turkey's government in America, the sanctions decision should not have come as a surprise. Since his first meeting with Mr Erdogan last year, when the American president brought up Mr Brunson on three separate occasions, the Trump administration has relentlessly called for the pastor's release.

Heading for a crash

Turkey

Lira per \$
Inverted scale



Consumer prices
% increase on a year earlier



Source: Thomson Reuters

"Both the executive and legislative branches have exhausted their strategic patience," says Amanda Sloat, a former State Department official now at Brookings, a think-tank.

It may be too early to tell whether the Treasury decision was a shot across the bows, meaning that there remains room for a compromise, or whether new sanctions are inevitable; talks were continuing as *The Economist* went to press. But many sanctions are in the pipeline already. One bill recently approved by the Senate threatens to block Mr Erdogan's government from taking delivery of 100 F-35 fighter jets in retaliation for its purchase of a missile-defence system from Russia. Another proposes that America lean on international financial institutions like the World Bank and the European Bank for Reconstruction and Development to suspend loans to Turkey until it releases Mr Brunson and three local employees of American consulates detained over the past year.

For a country hooked on capital inflows, saddled with \$220bn in corporate debt and now faced with a spiralling currency crisis, fresh sanctions could be devastating. Even the largely symbolic measures levelled against the two Turkish ministers, coupled with news that America would review duty-free access for \$1.7bn-worth of imports from Turkey, were enough to prompt one of the worst runs on the lira in over a decade. On August 6th the currency suffered its biggest daily net loss against the dollar since 2001. It has shed almost a third of its value over the past year. Since Mr Erdogan took over as prime minister in 2003, it has lost almost 70% of its value.

More generally, the economy has been in trouble for some time. Amid a glut of cheap credit and fiscal spending, inflation has climbed relentlessly, hitting nearly 16% ▶▶

▶ last month, the highest rate since 2003. The collapse of the lira has forced a number of leading Turkish companies to restructure billions of dollars in debt. Some might now be on the brink of default. Under pressure from Mr Erdogan, who thinks high interest rates produce inflation, an idea about as popular with economists as the notion that the Earth is flat, and who insists on growth at all costs, the central bank has consistently done too little too late to contain the damage. To the surprise of most analysts, the bank did not raise rates at its most recent meeting on July 24th. With inflation rising, the lira may have to weaken further to keep Turkish exports competitive, says William Jackson, an analyst at Capital Economics. The most the bank can probably hope to achieve, he says, is to manage the currency meltdown.

Investor confidence is ebbing away. The

end of the state of emergency on July 18th has not improved sentiment nearly as much as expected. Many of the government's emergency powers, including the right to sack judges and civil servants on vague national-security grounds, have found their way into a new security law. Others have been enshrined in a constitution that tightens Mr Erdogan's grip on the executive, allowing him to appoint and replace senior officials at will, and weakens parliamentary oversight. Fresh from an election victory, the Turkish strongman now seems poised to take even greater control of monetary and fiscal policy. Mr Erdogan has ditched his old economic team in favour of relatively untested loyalists, including his son-in-law, Berat Albayrak, whom he appointed as the finance and treasury minister. None of those moves will improve investors' confidence. ■

can be made angers some in her party. In 2016 pro-refugee activists threw a chocolate cake at her at one of its conferences to protest against her supposedly "brown" (meaning far-right, a reference to the Nazis' brownshirts) politics. When, at this year's conference on June 9th, Left party delegates voted in favour of open borders, it was seen as a defeat for Ms Wagenknecht.

She presents her new movement as a chance to bridge divisions within the left. Some suggest it may prepare the ground for a future SPD-Left-Green government, and its early supporters include figures from all three parties and none. However, it is better understood as her bid to develop her own brand of economic statism and cultural conservatism. "The AfD does not represent poor people. But if they turn to the AfD nonetheless, I think we should not insult them but ask what we have done wrong." Such voters and others "have not found their way to the Left party", she adds, noting that polls show that she would win more votes as an independent than as a candidate representing the party. Unsubmissive France, a brand-new party set up to support Jean-Luc Mélenchon's hard-left bid for the French presidency last year, has impressed her.

If Rise Up evolves into a bridge between the anti-establishment left and right, it will not be an isolated case. The two ends of Germany's political spectrum routinely rub shoulders at anti-NATO protests. Compact, a prominent right-populist magazine, has cheered on Ms Wagenknecht's new movement. It is edited by Jürgen Elsässer, a former far-left activist who has switched to the pro-Putin right. The AfD has started to involve itself in workers' protests—like those over the threatened closure of a Siemens factory in Görlitz, near the Polish border, this spring. Some form of AfD-Left co-operation in state politics is probably only a matter of time (the two parties may together win enough seats for a majority in Saxony's parliament in the election due there next year).

As the left-right divide gives way to an open-closed one, new alignments are taking place in European politics. Elements of the left are resembling the hard right: witness the British Labour Party's anti-Semitism scandals and limp opposition to Brexit, or Mr Mélenchon's diatribes against foreign workers, or coalition arrangements between the anti-immigrant populists and the anti-capitalist left in Greece and the Czech Republic. Meanwhile, elements of the hard right are borrowing from the left: once free-market but anti-migrant outfits like Austria's Freedom Party, France's National Rally and the AfD are learning to love redistribution. A new space is opening up: Russia-friendly, anti-Atlanticist, Eurosceptic, economically interventionist, sceptical of or hostile to immigration and trade. Watch out, centrists. ■

Germany

The right hand talks to the left hand

BERLIN

New fusions of economic statism and cultural conservatism are emerging in European politics

SITTING down with *The Economist* in her office in Berlin, Sahra Wagenknecht is restless: "Do we think that anyone can just migrate to Germany and have a claim to social welfare?" asks the doyenne of the Left (*Die Linke*), a socialist party. "Or do we say that labour migration is more of a problem?" The party's leader in the Bundestag worries about its direction. "If you concentrate more on hip, urban sorts of voters—on identity and lifestyle debates—you don't speak to the poorest in society. They no longer feel properly represented." Her answer, launched on August 4th, is a new, non-party movement called "Rise Up" designed to reach those who have switched off from politics. It may point to a significant realignment in both German and European politics.

The Left was formed in 2005 when leftists who had quit the Social Democrats (SPD) merged with the successor party to the former East German communists. It has always been an uneasy alliance of provincial socialists and urban left-libertarians. At last year's election it lost some 420,000 voters, principally older ones in the former communist east, to the right-wing Alternative for Germany (AfD) party, but offset that loss by gaining 700,000 from the SPD and 330,000 from the Greens, mainly in western cities and university towns. It now faces a choice: consolidate its new strength as a lefty alternative to the Greens (as Katja Kipping, the Left's leader, wants to do) or prioritise winning back tra-

ditional working-class voters as a lefty alternative to the AfD?

For several years now Ms Wagenknecht has raised eyebrows by pursuing the latter strategy. She has argued for limits on refugee numbers and blamed the Berlin terror attack in 2016 on Angela Merkel's open-border policies. She is Eurosceptic, critical of NATO and broadly friendly to Russia. All of this aligns her with aspects of the AfD, whose leader, Alexander Gauland, has praised her and said he wants closer co-operation. Though Ms Wagenknecht rejects the idea ("out of the question," she declares firmly), the fact that the comparison



Wagenknecht wants her voters back

Poland

Buying back the family silver

WARSAW

The government wants to push foreigners out of crucial areas

POLISH banks should be in Polish hands, or so says the ruling Law and Justice (PiS) party. Since PiS came to power in 2015, Polish ownership of banks' shares has risen, last year surpassing 50% for the first time since 1999. What the government calls "repolonisation" is a form of creeping nationalisation, with foreign-owned banks being bought up (on a voluntary basis) by state-controlled companies. But while PiS extols the virtues of economic patriotism, economists are more wary.

"Repolonisation" has become a buzzword under PiS, applied to everything from shipbuilding to medicines. The government has also toyed with "repolonising" newspapers owned by foreign publishers, including Ringier Axel Springer, a Swiss-German media company. "Capital has a nationality, especially in this incredibly politically sensitive segment, the media," says Jaroslaw Sellin, Poland's deputy minister of culture.

PiS presents repolonisation as a return to earlier times. After communism collapsed in 1989, most banks in Poland were state-owned. Over the next decade, many were sold to foreign financial groups. By repolonising banks, the government is bringing the "family silver" home, says Mateusz Morawiecki, who was promoted to the job of prime minister in December. Observers have noted the irony. As recently as 2015, Mr Morawiecki was CEO of Bank Zachodni WBK, which is controlled by Santander, a big Spanish banking group.

After smaller takeovers, repolonisation culminated with the sale in June 2017 of a 32.8% stake in Pekao by UniCredit, Italy's biggest lender, to PZU, Poland's state-controlled insurer, and the Polish Development Fund (PFR) for 10.6bn zlotys (€2.5bn). The transaction gave Polish capital control of 53% of the banking sector.

Repolonisation is a matter of macroeconomics, not ideology, says Pawel Borys, the head of the PFR. But it chimes with the government's broader statist instincts, involving economic interventionism and high social spending, says Janusz Jankowiak, the chief economist at the Polish Business Council. "Pride in Polish companies" and "economic patriotism" are driving the country's economic development, said Mr Morawiecki in a speech in May.

PiS's brand of repolonisation carries risks, economists warn. It increases state control over lending, which could then be used to fund risky projects rightly avoided

The French and trains

Exodus

GARE MONTPARNASSE

Summer and the meaning of trains

A TEENAGER, headphones pinned to his ears, heaves a stuffed backpack across the station hall. A team of adult supervisors, eyes darting back and forth, guides boisterous children in fluorescent yellow jackets through the ticket barrier, on their way to a *colonie de vacances*, French subsidised summer camp. A tall, lean father in well-pressed shorts marches three small matching boys towards the platform. Fit-looking grandparents climb into a train carriage, shepherding grandchildren to their seats.

August in France, when Paris empties out, brings an annual ritual to the country's mainline railway stations. Out go the besuited early-morning travellers, settling into high-speed TGV trains for business meetings in Bordeaux or Lyon. In come extended families, fishing rods, skateboards, tennis racquets, pushchairs and cats in carry-on baskets. Each year, thanks to a network of fast links that can connect Paris to Marseille on the Mediterranean coast 800km away in just over three hours, as well as discounted family tickets, a massive 110m passengers take TGVs within France. Every day, 820 of these trains tear up and down the country. Overall, Germany may have more

railway tracks. But train travel in France grabs a greater share of all journeys than in Germany, Britain, Spain or Italy.

Railways loom large in the French imagination. Claude Monet painted 12 oils of the Gare Saint-Lazare in 1877, the billowing dark steam from the engines rising towards the light clouds outside. "Fear the day that a train no longer stirs you," wrote Guillaume Apollinaire, in his war poem "Victory". While launching a startup incubator in a converted former railway depot in Paris last year, President Emmanuel Macron deservedly got into trouble for describing a train station as a "place where one passes those who succeed, and those who are nothing".

Inaugurated in 1981, the TGV is regarded as an emblem of national technical prowess. It revived rail travel and shrank the country's mental map. After the opening last year of new fully high-speed links to Rennes and Bordeaux, no further lines are planned. But its cost has plunged the SNCF into debt, which the government is now taking onto its books as part of its railway reform. Planned competition may change the nature and branding of the trains on French tracks. But the summer rituals will doubtless remain.



That's the way the Monet goes

by private banks. Meanwhile, further consolidation into fewer, state-controlled banks could reduce competition, pushing up the cost of loans and therefore consumer prices. Since Pekao was repolonised, there has been speculation that it could merge with PKO BP, Poland's biggest bank (which has denied this). The new, state-controlled giant would have a market share of one-third and some 15m customers. Mr Borys suggested last year that it would be a "good solution", in the context

of increasing Poland's role in the European banking market.

For now, the government has hailed repolonisation a success, with Mr Morawiecki calling it "a strong security buffer" against turbulence on international financial markets. Yet as other foreign banks mull selling their subsidiaries in Poland, there may be further takeovers. The Polish economy is in good shape, with low unemployment and solid growth. But for PiS, patriotic meddling remains in vogue. ■

Charlemagne | Street politics

What a campaign to revive Russia's urban spaces might mean for civil society



SOVIET SQUARE in Voronezh no longer looks especially Soviet. Children dart through a dancing fountain. BMX bikers barrel across new tiles. Grassy groves play home to picnicking teens. “It’s practically Spain,” gushes a pensioner.

The newly reconstructed square is one piece of a sprawling campaign of *blagoustroistvo*, or urban improvement, spreading across Russia’s cities and towns. The trend began in Moscow, where city authorities have rebuilt hundreds of streets and public spaces since 2011, transforming the centre into an unrecognisable pedestrian paradise paved with *plitka*, the project’s distinctive tiles. Other World Cup host cities received more modest facelifts ahead of this summer’s tournament. The results have pleased the Kremlin. Last month President Vladimir Putin made his first appearance at the Moscow Urban Forum, extolling the importance of “a comfortable, friendly city atmosphere”. A broader national effort, launched in 2016-17, is gaining steam. Earlier this year Mr Putin directed the government to double spending on “comfortable city environment” projects. This state-mandated urbanism represents the “authoritarian modernisation” Mr Putin seeks. Yet it may also carry the seed of a more open future.

For the government, the attraction is evident. Visible results help demonstrate effectiveness and foster loyalty. Many in Moscow see *blagoustroistvo* as a thinly-veiled ploy to placate the urban middle class who protested against fraudulent elections in 2011-12. Bureaucrats also see it as a means to stimulate a stagnant economy. Some 75% of Russians live in cities, many designed for an industrial Soviet-era economy. Improving public spaces attracts tourists and creates room for small business.

While the projects’ financing remains modest—some 1% of regional spending outside Moscow, reckons Natalia Zubarevich, an expert on Russia’s regions, its scope is vast. Leading the charge is KB Strelka, a consultancy backed by Alexander Mamut, an oligarch, and founded as an outgrowth of the liberal-minded Strelka Institute for Media, Architecture and Design. After developing much of the Moscow *blagoustroistvo*, Strelka has turned to the regions, where it is aiding 40 cities, accounting for roughly a fifth of Russia’s population, as they carry out revivals of streets, parks, squares, embankments and other public spaces. It is also advising several hundred *monogorods*, or one-factory towns, on re-

talisation plans, and writing new urban-design standards for the Construction Ministry.

The efforts have provoked critics nonetheless. In Moscow they have decried the exorbitant costs and the often brutal methods employed, such as the violent clearing of small kiosks. Accusations of corruption abound: RBC, a media organisation, has alleged that several contractors were linked to family members of the deputy mayor responsible for *blagoustroistvo*. In smaller cities such as Voronezh, residents complain about incompetence. “Would you let your kids play in this playground?” one mother yells, pointing to a metal slide that empties inexplicably onto a small rubber landing surrounded by scrubland.

Yet the impact of *blagoustroistvo* may take longer to manifest itself. Denis Leontyev, KB Strelka’s co-founder, calls the consultancy “an institute of values”, the key one being “human-centric” thinking. In a country long ruled by leaders who put the interests of the state and the collective ahead of the individual, that is an important shift. The question is whether *blagoustroistvo* can help create more than just a European-looking facade.

The early results offer some reason for optimism. In areas with leaders willing to embrace more open communication—a group growing larger as a new generation of bureaucrats rises through the ranks—*blagoustroistvo* can become a space for fostering dialogue between the state and society. Take Palekh, a town of some 5,000 nestled in forests north-east of Moscow. Once a centre of Russian icon painting and later lacquer work, Palekh fell into disrepair after the Soviet collapse. Now with KB Strelka’s guidance, the central square has become a bustle of activity, as bulldozers crunch dirt and workers lay new cables.

Change has to start somewhere

Town meeting halls, where the authorities have taken the unusual step of listening to residents, also play a part in Palekh. Public hearings have debated the merits of fountain shapes, road widths and foliage. “The fate of every tree was discussed,” boasts Stanislav Voskresensky, one of a host of younger technocratic governors appointed in late 2017. The approach has shaken up the region’s ossified ways. “More often than not, such hearings were formalities, a box that needed to be checked,” says Igor Starkin, a veteran administrator who took over as the head of Palekh earlier this year. Now, he is a disciple of engagement: “Feedback creates a union of souls,” he says. The authorities’ new-found openness has stunned residents, too. For many, the *blagoustroistvo* discussions were their first experience of civic activism. “There’s always been lots of talk, but only among ourselves, never in public,” says Olga Kolesova, the director of the local museum. “This is the first time they’ve given people a chance to say something.”

It would be foolish to see *blagoustroistvo* as a cure for Russia’s repressive politics. Mr Putin will not loosen his grip on power because of a few new parks. “They don’t want democracy, they want results and budgets,” says Ekaterina Schulmann, a political scientist. Any civic activity, she notes, quickly “hits a ceiling” when it moves away from safe topics such as urbanism to challenge those in power directly. Yet it would be equally foolish to ignore the processes that *blagoustroistvo* both reflects and stimulates. Russians’ creative energies may not have an outlet in politics, but they have not been stamped out. As Michal Murawski, an anthropologist from University College London who studies Putin-era urbanism, quips, “There is politics in every *plitka*.” Sometimes a square is more than just a square. ■



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Cities and development

Build, baby, build

SEATTLE

A flourishing west-coast city wants to avoid becoming another San Francisco

FOR the third consecutive year, Seattle has the most cranes in operation of any city in America—three times as many as New York. Long a placid, drizzly company town, the place is booming. Since 2010 Seattle has grown more quickly than any other large American city, thanks in part to the success of Amazon and Microsoft, two local technology firms. Entrepreneurs are flocking there, repelled by the obscene costs of San Francisco.

But the pathologies of the Bay Area may not be far behind. Rents have shot up and homelessness is common. “We are not a welcoming city in the way Seattle has historically been,” says Mike McGinn, the former mayor. The boom shows little sign of abating, meaning that Seattle has only a few years before it contracts a case of full-blown San Francisco. Either the city will cleverly manage its growing prosperity, or it will become inaccessible to ordinary people. The Emerald City would be turned into a gilded fortress.

A single-family residence now rents for \$2,600 per month, on average—25% more in real terms than five years ago, according to data from Zillow, a property website. That is less than the peak price of \$2,870 reached in September 2017. In fact, it is the largest drop in rents seen in any of America's 100 largest cities. Much of the decline is owing to the frantic pace of building visible in parts of the city. Seattle added 8,750 units of housing last year, nearly double

San Francisco's count. Another 22,000 units have been approved.

Better than other highly successful cities, Seattle grasps the fact that property prices are driven by supply and demand. Americans can move freely, and demand for urban living is enormous. Yet supply remains tightly constrained by local zoning rules and limits on building heights and density. The resulting artificial scarcity, enforced by the government, inflates prices, benefiting homeowners. The overall costs to society are staggering. Research by two economists, Chang-Tai Hsieh and Enrico Moretti, estimates that removing excessive regulations in just three cities—New York, San Francisco and San Jose—could boost America's GDP by 9% because more people could move to them.

In Seattle, as in other cities facing similar problems, three camps have emerged. The first contains urbanists and developers who want to build more homes. In the second camp are homeowners, who fear that new housing will depress property values. If new building is to happen, these NIMBYS would prefer it to happen elsewhere. The third camp is occupied by the urban left. Its members are keen on public housing but suspicious of unfettered private building, which they see as a handout to developers.

In California socialists and affordable-housing activists called PHIMBYS—which stands for “public housing in my backyard”—joined NIMBYS to oppose legisla-

tion that would have greatly expanded market-rate development in San Francisco. “In Seattle the NIMBYist-Trotskyite alliance is the default political alignment,” says Alan Durning, executive director of the Sightline Institute, a local think-tank.

Seattle's proposed solution to this deadlock, unveiled in 2015, is known as the “grand bargain”. It would reduce restrictions and unleash building on big patches of city. In exchange, developers would have to reserve a few units for renting below the market rate or pay into an affordable-housing fund. Such schemes, known as “inclusionary zoning”, are increasingly common in progressive American cities. They can lead to more mixed districts and placate left-wing critics. But they are not without problems.

By reducing future earnings, inclusionary zoning acts as a tax on new development. If the affordability requirements are set too high, many new projects will not be built. Bill de Blasio, New York City's progressive mayor, championed requirements that at least one-fifth of new units should be offered below the prevailing market rate. San Francisco sets the threshold as high as 30% and imposes a clutch of added “impact fees”. Developers complain that these fees suffocate all but the most lucrative projects—which then invite criticism as “luxury high-rises”.

Seattle has negotiated a more reasonable route by requiring between 5% and 11% of new units to be rented at below-market rates. Progressives think that too little. “It's not in any way a substitute for a serious programme of affordability. We need rent control, social housing on a mass scale, and a full bill of renters' rights,” says Kshama Sawant, a socialist member of the city council. “It's all been led by what developers want, and by what corporate Seattle wants,” adds Tammy Morales, a com- ▶▶

► munity organiser in southern Seattle, who says the city is doing little about the displacement of poorer residents.

Any remaining goodwill towards Seattle's building plan has also diminished after Amazon made a rare intervention in local politics. On May 14th the city council passed a "head tax" of \$275 per employee for firms with more than \$20m in annual revenue, in order to fund services for homeless people. Amazon, which employs more than 40,000 people in Seattle, promptly halted construction on one office tower and suggested it would sub-let another. A month later the city council tucked tail and repealed the tax. Progressives were furious. Ms Sawant, who (along with one other holdout) voted to keep the tax, called it a "serious betrayal".

The perception that Seattle is becoming Amazon-town will make neighbourhood change, never easy, a harder sell. Imple-

mentation of the city plan, despite four years of consultation, has been slow. Restrictions are loosened in urban centres, leading to a building boom and a trickle of affordable housing. But only 6% of single-family neighbourhoods would be profoundly affected by the plan. And homeowners are digging in even against that. Mr Durning likens it to trench warfare.

For more than 50 years NIMBYS have swayed American city politics. They attend council meetings in droves and vote in low-turnout local elections. They explain why strange pockets of low-rise suburbia, frozen in time, can be found in the heart of many cities facing sharply rising rents, such as San Francisco's Noe Valley, Seattle's Queen Anne and Northwest Washington. Upsetting the entrenched power structure of cities is an exasperating, thankless task. But if they are to remain truly open to all, it will be necessary. ■

Voter purges

On election day, stay away

ATLANTA

Republicans say they're fighting fraud. Democrats call it voter-suppression

IN 1965 President Lyndon Johnson signed the Voting Rights Act. Among other things, this required places with a history of discriminating against non-white voters to obtain federal approval before changing the way they conducted elections. In the ensuing decades it narrowed, and in some cases reversed, racial gaps in voting. Congress repeatedly reauthorised the Act, most recently in 2006 for 25 years.

But in 2013 the Supreme Court gutted the pre-clearance provision. Since then states that had been bound by it have purged voters from their rolls at a greater rate than other states. That is part of a dramatic rise in voter purges in recent years. Many on the right say such purges and other policies are essential to ensuring electoral integrity. Others see a darker purpose.

According to a recent report by the Brennan Centre for Justice, a think-tank and advocacy group at New York University, nearly 16m voters were removed from the rolls between 2014 and 2016. That is almost 4m more than were purged between 2006 and 2008. The increased purging far exceeds population growth or the growing number of registered voters.

Not all voters were removed erroneously. Culling voter rolls of people who have died, moved, or been convicted of a serious crime keeps them accurate. But Myrna Pérez, one of the report's authors, says that in jurisdictions previously covered by the Voting Rights Act's pre-clearance provision, there is a statistically significant relationship between districts with high purge rates and high rates of voting by provisional ballot. That could indicate bad purges. Improperly purged people are often given provisional ballots when they try to vote, whereas those who are properly purged seldom try. Between the presidential elections of 2012 and 2016, districts formerly covered by pre-clearance provisions removed more than 9m voters from their rolls. In Georgia, 156 of the state's 159 counties saw increases in removal rates.

The report also found that, in the past five years, four states have conducted purges in ways that violate federal standards—for instance, by purging voters too close to an election and failing to inform voters adequately that they had been removed from the rolls. Many states seem to have relied on flawed information. Arkansas, for instance, bars felons who are serving their sentences from voting. But a list of voters to be purged in June 2016 included ►►

Traffic

Jammed up

New York City tries to free its roads by restricting Uber and Lyft

RIDE-HAILING companies like Uber and Lyft are loved by city dwellers but may be jamming roads. In midtown and lower Manhattan, cars have slowed from an average speed of 9.1mph (14.6kph) in 2010 to 7.1mph in 2017. Concerned about both traffic jams and falling wages for ordinary taxi drivers, New York's city council passed a bill on August 8th imposing a one-year moratorium on new licences for hired vehicles.

The measure may not reduce traffic congestion much. Todd Schneider, a computer programmer, has published data collated by New York's city government on the number of for-hire car journeys by borough. His statistics show that although Uber and Lyft journeys are well up, their impact on congestion in Manhattan has been tempered by the fact that they have put so many taxi drivers out of work (see chart). The new car services are more popular in New York's outer boroughs, where taxis are scarce and speeds generally higher. Uber argues that the council's cap will reduce the number of cars in the outer boroughs, but not in Manhattan, where drivers can complete more trips per hour.

In March the city approved a flat surcharge on both taxi and for-hire journeys in Manhattan. Critics doubt that this will do much to alleviate New York's traffic problem, either. It would be much better to nudge travellers to stay away during the busiest hours. Congestion pricing, as the practice is known, has been implemented in London, Stock-

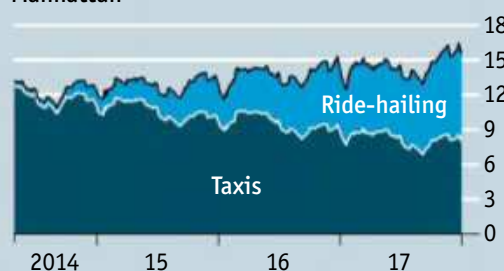
holm and Singapore. Uber, whose ride-sharing cars would probably face lower charges than taxis under such a policy, is keen to go ahead.

Fix NYC, a task-force focused on fighting traffic jams and improving public transport, recommended in January that New York should introduce a congestion charge that would vary by time of day. That seems a distant prospect. A poll conducted by Quinnipiac University in March showed that 52% of voters living in New York City opposed congestion pricing, whereas just 42% were in favour. Technocrats may like such schemes, but the public seems unwilling to pay to avoid sitting in traffic.

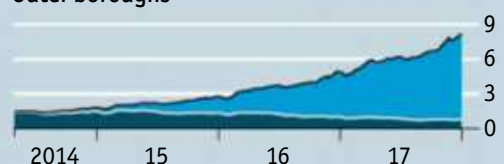
Where yellow cabs don't go

New York City, monthly* car-ride pickups, m

Manhattan



Outer boroughs†



Sources: Todd Schneider; NYC Taxi and Limousine Commission *Trailing 28 days †Excluding airports



Trust but verify

► more than 4,000 people who had simply come into contact with the court system because of divorces, misdemeanours and the like. New York removed hundreds of thousands of voters (more in mostly Hispanic districts than elsewhere) whom it wrongly believed had moved.

Ms Pérez also noted a rise in lawsuits filed against states by conservative activists seeking more aggressive purging of the rolls. This pattern, the report says, began in 2008—the year that a multiracial coalition elected America’s first black president.

The feds have flipped

Under Barack Obama, the federal government sued states it deemed too restrictionist. Under President Donald Trump, the Department of Justice has reversed course. It has backed a strict voter-identification law in Texas which it previously opposed, and endorsed Ohio’s practice of purging infrequent voters. Both Texas and Ohio have Republican governors. Republicans have also backed laws requiring voters to show government-issued photo IDs (which ethnic minorities and young voters, who tend to vote Democratic, are less likely to have). They contend that this is essential to stop voter fraud.

Voter-impersonation fraud is vanishingly rare. One study found 31 possible cases out of more than 1bn votes cast between 2000 and 2014. Yet it has become a conservative shibboleth. Mr Trump insists, without evidence, that he lost the popular vote in 2016 only because millions of people voted illegally. He even set up a commission—run by Kris Kobach, a backer of strict voter-ID laws who might become

Kansas’s next governor—to investigate claims of voter fraud.

The commission lasted less than eight months. Mr Trump disbanded it weeks after a court ordered it to turn over information to Matt Dunlap, Maine’s secretary of state, who complained it was keeping information from him and other Democrats on the commission. Mr Dunlap, who on August 3rd released the documents he had sought, believes “the whole purpose of the commission, regardless of evidence, was to validate the president’s assertion that millions of illegal votes were cast”.

Logan Churchwell, a spokesman for the Public Interest Legal Foundation, which has sued states over voter rolls it claims are inaccurate and whose head served on the commission, blamed Mr Dunlap for the failure to find evidence of voter fraud: “That’s what happens when you sue something into oblivion.” How a lawsuit for information six months into the commission’s existence impeded its ability to find evidence of fraud over the previous six months remains unclear, however.

Republicans tend to cast their efforts to root out fraud as essential to preserving electoral integrity—a perfectly reasonable goal. But Carol Anderson, a professor at Emory University in Atlanta and author of a forthcoming book about vote-suppression, says reasonable-sounding aims long justified discriminatory policies; the poll taxes that blocked black voters, for example, were presented as a race-neutral safeguard. Running elections costs money, their backers explained, and a tax was necessary to cover the costs. Ms Anderson contends that Republicans now want to create disillusionment with the voting process, so that large swathes of the electorate come to believe it is hopeless. “That’s no way to run a democracy,” she says. ■

Poverty

Going, going... not gone

WASHINGTON, DC

Has poverty almost disappeared? No. Is it as common as ever? Also no

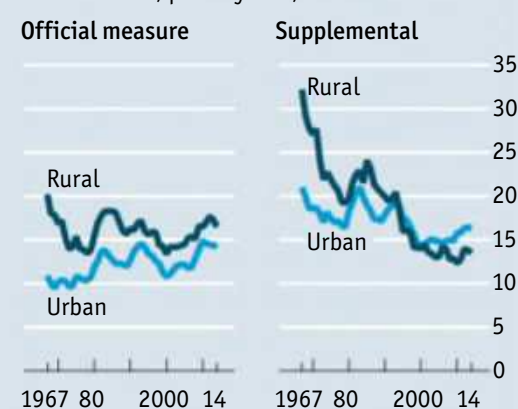
TWO years ago Paul Ryan, the Speaker of the House of Representatives, argued that Americans “are no better off today than they were before the war on poverty began in 1964”. The poverty rate, he explained, stood at 15%—the same as in the mid-1960s. Last month the White House’s Council of Economic Advisers (CEA) reached a completely different conclusion. The war on poverty, it proclaimed, was “largely over and a success”, with only 3% of Americans now poor. Clearly, both cannot be right. In fact, neither is.

Mr Ryan’s preferred measure, the Federal Poverty Level (FPL), is perfectly orthodox, yet perfectly absurd as a guide to how poverty has changed over time. It was based on food costs in the 1960s, using a rule of thumb that these were one-third of a family’s budget. Today’s FPL is, in essence, the cost of food for a family in the 1960s multiplied by three and adjusted for inflation. This rickety measure undergirds America’s entire welfare system, determining the flow of hundreds of billions of dollars a year.

The FPL is misleading partly because food now accounts for under 13% of the average household budget—much less than half a century ago. The measure also makes no adjustment for variations in the cost of living within the 48 contiguous states. The poverty threshold in New York City is the same as in eastern Kentucky. Worst of all, the measure relies on pre-tax income. It misses savings and government benefits like subsidised health care, food, rent assistance and tax credits. In short, the standard measure of poverty ignores the effects of anti-poverty programmes. No wonder the rate has hardly budged. ►►

Pick one, any one

United States, poverty rate, %



Source: “Long-term trends in rural and urban poverty: new insights using a historical supplemental poverty measure” by L.B. Nolan et al., June 2017

Correction: Matthew Nisbet is a professor at Northeastern University, not Northwestern, as we wrote last week (“A slow thaw”). Sorry.

Other, superior, measures are more encouraging. The Census Bureau's Supplemental Poverty Measure accounts for anti-poverty programmes as well as variations in living costs. It suggests that poverty has ebbed (see chart on previous page). Social Security has helped cut poverty among old people, while food stamps and other programmes have filled children's bellies. In terms of living space, the number of rooms in flats and access to amenities like air conditioning and dishwashers, the poorest 20% of Americans live about as well as the middle class did a generation ago.

The CEA uses yet another measure, known as the consumption-poverty rate. This reports what households spend rather than what they earn. Similar measures are often used in poor countries, where most work is informal and hard to track. But how much consumption is too little? Researchers usually peg the measure to consumption levels in a particular year, known as the "anchor year", and then estimate changes. Choosing different anchor years gives wildly different results. The consumption-poverty measure that produced the heartening 3% figure, for example, was pegged to consumption levels in 1980. Had 2015 been used as an anchor year, the estimate would be a much less impressive 12.7%. "I don't think there's a lot of meaning to that 3% number," says Bruce Meyer, an economist at the University of Chicago who helped devise the consumption-poverty index.

Measuring poverty always entails tricky value judgments, as Adam Smith observed in "The Wealth of Nations" while meditating on a linen shirt. Though ancient Greeks and Romans lived comfortably without linen, he wrote, "a creditable day-labourer" of the 18th century "would be ashamed to appear in public without a linen shirt" for fear of betraying a "disgraceful degree of poverty". Today much the same could be said of cars or smartphones. Poverty can be defined in absolute terms—as having too little to pay for life's essentials. For example, 4.9% of American households experienced "very low food security" in 2016, meaning that a family member went hungry at least once. But that measure seems too austere in a country as rich as America.

Despite their differences, the White House reaches the same conclusion as Mr Ryan in 2016: more poor people should work in return for benefits. The White House is encouraging states to impose work requirements on Medicaid, the health-insurance scheme for the poor. Kentucky's proposal, which a federal judge recently struck down, was expected to reduce its rolls by 15% in five years by making compliance more complex. In the first month of Arkansas's work requirement for Medicaid, 26% were at risk of losing their health insurance. The government would

Haulage

Keep on trucking

SANTA BARBARA

A shortage of lorry drivers is getting worse

IN 1970s films like "Duel" and "Smokey and the Bandit", truckers are outlaws. If that was ever close to the truth, it is now a highway's length from it. Consider a requirement, enforced since April, that lorries must be fitted with an electronic logging device (ELD) to track speed, location and driving times. Drivers who are just a few dozen miles from home must now often pull over and wait, sometimes for ten hours, before continuing.

Or consider the video cameras that some logging devices aim at drivers. These send alerts to headquarters if a driver's head or eye movements suggest that he is distracted or otherwise driving unsafely. Not surprisingly, many truckers associate ELDs with "a whole lot of real, real frustrations", says Todd Spencer of the Owner-Operator Independent Drivers Association in Missouri.

As truckers' gripes grow, though, so do their wages. The past year has seen pay increases of nearly 10%, not counting the hiring bonuses of \$5,000-10,000 that have become common. Partly as a result,

moving goods along American roads has become much more expensive. In the 12 months to June, the cost of contracts for road freight rose by 18%. For the roughly one-third of freight that is booked on the short-term "spot" market, costs went up by 28% over the same period, according to DAT Solutions, an Oregon firm that matches loads to carriers.

The American Trucking Associations (ATA), the industry's largest trade group, reckons America needs nearly 51,000 more drivers of big rigs. The average American lorry driver is 55 years old. Younger people are seldom keen on a job that tightly restricts smartphone use, not to mention time at home. The young may also fear that autonomous vehicles ("robot drivers", as truckers contemptuously call them) will steal their jobs eventually. Rob Hatchett, vice-president of recruiting at Covenant Transport Services in Tennessee, wishes that talk of self-driving trucks would "go away" until the technology is ready.

The ATA is lobbying Congress to pass a bill, introduced in March, that would lower the minimum age for interstate trucking to 18 from 21. And more shippers are setting up hubs where trailers are swapped, which keeps drivers closer to home and therefore happier. But until any such efforts make a big dent in the driver shortage, wages and freight costs are likely to continue rising.

Oddly, consumers may not have noticed the escalating cost of trucking. They should thank Amazon, says Craig Decker of Wolfe Capital Markets & Advisory in New York. The online giant's shipping costs in America rose from \$11.5bn in 2015 to \$21.7bn last year. But rather than pass the expense along to shoppers, Amazon has subsidised shipping with revenue from its cloud-computing operations. Amazon's competitors have responded by trimming their margins. As far as the average American is concerned, the road is smooth.



Like a bandit

like to apply similar rules to rent subsidies and tighten existing eligibility requirements for food stamps.

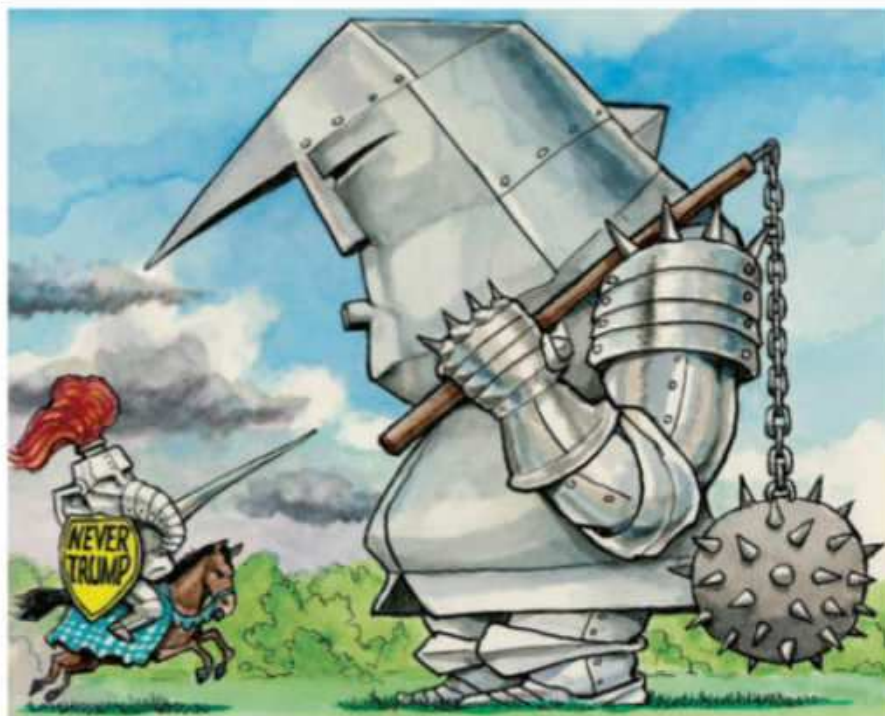
Such moves are unlikely to cut poverty much, if at all. Welfare reforms in the 1990s under President Bill Clinton, which tied payments to work, succeeded in boosting working, says Lynn Karoly, a senior economist at the RAND Corporation, who examined the effects of welfare reform for the Department of Health and Human Ser-

vices. But because benefits tapered off as people earned more, poverty did not fall. Of the 13 studies considering the effect of work requirements on income, 11 found no significant impact.

It would be foolish to remake the welfare system on such shaky statistical foundations. America has made great strides against poverty in the last half-century. That is an argument for carrying on, not reversing course. ■

Lexington | Storming Trump Tower

Never Trump Republicans are marginalised and humiliated. But they could have their revenge



THE phrase “forlorn hope” entered English from Dutch and German in the 17th century. It referred to a suicide mission or, more often, the ambitious and condemned men chosen to execute it. The most celebrated British forlorn hope was a band of aristocrats and ne’er-do-wells sent to scale the walls of the Spanish city of Badajoz in 1812. They carried sacks of hay to cushion their leap into its defensive ditch. Many were blown up by French mines the moment they landed.

Never Trumpers, as President Donald Trump’s Republican critics are known, are the forlorn hope of American politics. Led by conservative pundits such as Max Boot, David Brooks, Bill Kristol, David Frum and George Will, they are few in number, gallantly in favour of things like free trade and fiscal discipline that Republicans used to care about, and probably doomed. Mr Trump’s hold over Republicans seems unbreakable. Almost 90% approve of his performance. “There is no Republican Party, there’s a Trump party,” says John Boehner, a former Republican congressional leader.

That conclusion, sharpened by the failure of elected Republicans to resist the president’s pandering to Vladimir Putin, has forced Never Trumpers to a moment of reckoning. Messrs Frum, Boot and Will urge conservatives to vote Democratic in the midterms. Mr Brooks and two Republican movers-and-shakers, Reed Galen and Juleanna Glover, are floating the idea of a new centrist party. A group part-founded by Mr Kristol, founder of the *Weekly Standard*, hopes to launch a primary challenge to Mr Trump. Among the more or less openly disaffected Republicans Mr Kristol is courting to lead the assault are Governor John Kasich of Ohio, Senator Ben Sasse of Nebraska, Mitt Romney and Nikki Haley, Mr Trump’s ambassador to the UN. If none will oblige, Mr Kristol suggests he might have a crack at it himself.

Defenders of Mr Trump’s citadel have greeted these plans with derision. Asked what she thought of Mr Kristol’s ambitions, Kellyanne Conway, a Trump spokeswoman, asked which country he hoped to lead. Setting aside the fact that her lawyer husband, George Conway, is a closet Never Trump, this was understandable. Mr Kristol, a cerebral conservative, is not a serious candidate. Moreover, the notion of him challenging Mr Trump hints at the Never Trumpers’ main weakness: their reluctance to

accept that his victory was a rebuke to the small-government creed they espouse. Then again, charging enemy cannon requires a degree of self-delusion about your prospects. It also requires grit, which Never Trumpers take from another source. Their main objection is not to the president’s protectionist, deficit-boosting policies, much as they hate them. It is to his divisive, destructive politics. Most would settle for dislodging Mr Trump even if they could not win back their party in the process.

That is a realistic hope. Mr Trump won the nomination with support from a minority of Republicans. He squeaked to power thanks to a late rally by suburbanites who disliked him less than Hillary Clinton. Yet instead of trying to expand his support, he speaks mainly to his fervent base, representing around half of Republican voters. The fact that most other Republicans say they approve of him reflects the hyper-partisan environment he has engendered. Mr Kristol believes a cogent case against Mr Trump from within his party could give those voters pause.

Many Republicans are already uneasy about the president’s record on certain issues, including Russia and trade. And those on Mr Kristol’s wish-list are well able to offer correctives to his bad policies. Mr Kasich might talk more about his record of expanding health care to poor Ohioans than he did during his presidential run in 2016. Mr Sasse has thought deeply about the effects of economic disruption on workers. Yet even if a Republican challenge to Mr Trump were articulated in policy terms, its focus would be on his behaviour. Do Republicans really want another four years of that? A large minority say they dislike his tweeting. That may reflect how they view his general unruliness.

There is little chance Mr Trump would lose in a primary. His hold on most Republican voters is too strong—though Mrs Haley, whom he might find hard to lambast, could make it interesting. But a serious challenge could damage his prospects in the general election, especially if the Democrats nominated a moderate alternative. It is striking how evasive conservative voters can sound when asked about their views on the president. They are for him, they say, because he is better than Mrs Clinton and appoints judges they like. But they could say that of almost any Republican. A stiff primary challenge might force them to contemplate some of the other stuff Mr Trump brings to the White House.

Wanted: top-notch cannon fodder

An irony of the argument that Never Trumpers are out of touch with their party is how little influence it ascribes to Mr Trump. The mismatch between the ruthless economics Republican leaders preached and the economic security their voters wanted predated him. His skill was to notice it. But he does have a hand in the rising ethno-nationalist tensions America is witnessing. A challenge that could offer Republicans the security they crave, without the race-baiting, would be invaluable. It could offer a template for post-Trump conservatism, whenever that might be possible. But will a high-class challenger step forward?

A prospect of glorious annihilation is not something many politicians find appealing. For that matter, “forlorn hope” sounds even worse in the original Dutch phrase, “verloren hoop”, which contains no reference to hope. (“Hoop”, correctly translated into English as “heap”, refers to a band of men.) Still, Mr Kristol says he is confident a champion will emerge while the role remains enticing. After 18 months of Mr Trump, the Republican Party is a dented but still powerful election-winning machine. After eight years of his leadership, who knows what it might look like? ■



Also in this section

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Brazilian politics

The plot thickens

SÃO PAULO

The outcome of the upcoming general election is harder to predict than usual

IF BRAZILIAN politics were a telenovela, the general election in October would make for a riveting finale. A motley cast of suitors is vying for the hand of a disappointed electorate. They include an old flame, who is pressing his suit from a jail cell, a swain who has all the attributes brides normally want but is a bit of a bore, and a rascal who promises excitement and danger. Unlike the plots of past political dramas, this one is building up to an ending that is impossible to guess.

That is because this election, in which voters will choose Brazil's president, all members of the lower house of congress and two-thirds of the 81-seat senate, plus governors and legislators in the 26 states and the capital, is different from any that has come before. The voters are more disgusted than at any time since the end of the military dictatorship in 1985. More than a quarter are undecided, an unusually high share just two months before the first round on October 7th; 31% say they might spoil their ballots or leave them blank.

Disillusionment makes voters unpredictable. Will they opt for one of the establishment candidates, who retain the customary advantages of backing by strong parties and the lion's share of advertising time (see chart on next page)? Or will they choose one of the radicals, who must get their message out mainly through social

media? Complicating the picture further are a new political-finance regime and new rules for electing members of congress. The fragmented presidential field means that a candidate could enter a run-off, to be held on October 28th if needed, with just 15% of the vote. The safest bet may be that the election will not produce the conditions for political and economic renewal that Brazil needs.

The sour mood comes from two traumas that Brazil has suffered over the past four years. One is the country's worst-ever recession, which began in 2014 and from which the economy is recovering slowly. The other is the *Lava Jato* ("Car Wash") corruption investigations. These began as a probe into bribe-paying by construction companies to win contracts from Petrobras, the state-controlled oil company, and have implicated scores of politicians from all the main parties. The current president, Michel Temer, has avoided prosecution only because congress voted to protect him from it. Last year just 13% of Brazilians said they were satisfied with their democracy, a lower share than in any other Latin American country, according to *Latino-barómetro*, a pollster.

The line-up of presidential hopefuls is unlikely to rekindle enthusiasm. The front-runner is Luiz Inácio Lula da Silva, who was president from 2003 to 2010 and re-

mains the country's most popular politician. But he is also the most important scalp claimed by the *Lava Jato* investigators: he is serving a 12-year sentence for corruption in a jail in Curitiba. That means he will almost certainly be disqualified before the first round. Regardless, on August 4th his Workers' Party (PT) nominated him to be its candidate, hoping to exploit the sympathy of voters who regard him as a left-wing martyr. If he is forced out, his running mate, Fernando Haddad, a former mayor of São Paulo, will probably become the PT's presidential candidate.

In polls that do not mention Lula, the leader is Jair Bolsonaro, a far-right congressman who has made a career of insulting gays, women and black people, extolling the dictatorship that ruled Brazil from 1964 to 1985 and advocating violent repression as the best way to fight crime. His running mate is a retired general who said last year that a military coup could solve the country's political crisis.

Lagging behind is Geraldo Alckmin, a centrist former governor of the state of São Paulo, who has run for president once before, in 2006. Others in the second tier are Ciro Gomes, a former governor of the state of Ceará who is battling with Lula's PT for the left-wing vote, and Marina Silva, an environmentalist with a compelling life story (she is the daughter of a rubber-tapper). She has run twice before.

Old whines

If the old rules applied, Mr Alckmin would be the strong favourite. That is not because of his charisma. Trained as an anaesthetologist, he is mocked by Brazilians as a *picolé de xuxu*, an (imaginary) popsicle made from a flavourless vegetable. But Mr Alckmin's Party of Brazilian Social Democracy ►►

Which medium is mightier?

Brazil, presidential election 2018

Selected candidates	Polling, % Jul 30th–Aug 1st 2018	Allocated time in electoral TV broadcasts* Aug 31st–Oct 4th 2018	Facebook followers, m Aug 9th 2018
Luiz Inácio Lula da Silva <i>PT</i>	31	2m 22s	3.6
Jair Bolsonaro <i>PSL</i>	19	9s	5.5
Geraldo Alckmin <i>PSDB</i>	9	5m 32s	0.9
Marina Silva <i>Rede</i>	8	21s	2.2
Ciro Gomes <i>PDT</i>	7	40s	0.3
Álvaro Dias <i>Podemos</i>	4	40s	1.1
Henrique Meirelles <i>MDB</i>	2	1m 56s	0.2

Sources: Ipspe; Folha de S. Paulo; Facebook

*Amount of time allocated in each 12-and-a-half-minute electoral programme. Includes time allocated to coalition partners

► (PSDB) is one of the most powerful (the last elected non-PT president, Fernando Henrique Cardoso, was among its founders). For the first time, it has formed a pre-election coalition with the *centrão* (big centre), an agglomeration of smaller parties.

That entitles Mr Alckmin to 44% of free television advertising time, far more than any other candidate. (Ms Silva jokes that she will barely have time to say “good morning”.) Mr Alckmin will also get the biggest share of 2.6bn reais (\$700m) in public campaign financing; for the first time in a presidential election, corporate donations are banned (at least in theory).

In the past, these advantages would have been decisive. The biggest shifts in poll standings normally occur after television advertising begins, which this year will be on August 31st, though the main gainers are usually unknown candidates. Mr Alckmin is, if anything, tiresomely familiar. So are his allies in the *centrão*, many of whom have been implicated in *Lava Jato* cases. “The PT and the PSDB think this will end up being another left-versus-right election,” says Pablo Ortellado, a professor of public policy at the University of São Paulo. “But it’s about traditional politics versus a rejection of the system.”

The leading rejectionist is Mr Bolsonaro, who plans to win by being a fresh face in national-level politics (though he has been a congressman for 27 years), immoderate in his pronouncements and, unlike Mr Alckmin, compelling to watch. An evangelical Christian, he hopes to appeal to the third of the population that shares his faith and to other conservatives who don’t feel represented by the main parties. “Bolsonaro is an expression of this enormous contingent that’s for the first time represented in the political realm,” says Fernando Schüller, a political scientist at Insper, a university in São Paulo.

To what extent that will translate into votes will depend in part on whether his social-media prowess can counter Mr Alckmin’s old-media advantage. Nearly all “alt-right” websites support Mr Bolsonaro, says Mr Ortellado, who monitors political social media. That may matter less than Mr

Bolsonaro hopes. Just half of Brazilians have frequent access to the internet, points out Mauro Paulino, head of DataFolha, a pollster. Mr Alckmin is trying to attract potential Bolsonaro voters by naming as his running-mate Ana Amélia from the conservative Progressive Party, to which Mr Bolsonaro belonged until 2015.

Another big unknown is how much support Mr Haddad will get if Lula is forced out of the race. The PT has formed an alliance with the Communist Party. Mr Haddad has begun to campaign with Manuela D’Ávila, one of its leaders, in what looks like an effort to familiarise voters with the duo in preparation for Lula’s withdrawal. The press has dubbed her the “vice’s vice”.

Although no party is more enmeshed in *Lava Jato* than the PT, voters remember that the economy prospered and the poor benefited under Lula’s presidency. “The PT stole, but they helped us out,” says Luciano Trajano, a janitor from São Paulo. Lula’s policies helped him buy his first plane ticket to visit his family in the north-eastern state of Paraíba. Such memories could usher Mr Haddad into the second round.

The new rules may change the shape of congress, though probably not as much as reformers hope. Public financing will benefit big parties at the expense of small ones. A “barrier clause” enacted last year eliminates money and media time for parties that get less than 1.5% of the vote in at least nine states, a threshold that will eventually rise to 3%. That will put pressure on politicians from small parties to join bigger ones. With fewer, more disciplined parties, congress may be less prone to the grubby deal-making that helped create the *Lava Jato* scandals.

However, 91% of the lower-house deputies under investigation plan to seek re-election, according to *O Estado de S. Paulo*, a newspaper. Some are surely doing so to keep their immunity from prosecution. “Congress won’t be substantially different,” said Pêrsio Arida, Mr Alckmin’s economic adviser, at a recent conference. “Change must come from the president.” Brazilians can only wait and wonder what sort of change that will be. ■

Colombia

A windy start

BOGOTÁ

The new president, Iván Duque, will be buffeted from all sides

AUGUST of wind struck the Plaza Bolívar in Bogotá while Iván Duque was sworn in as Colombia’s president on August 7th. During his inauguration speech, delivered on a massive stage thronged with Latin American presidents and other dignitaries, a man struggled to shield him from a light rain with an umbrella. Seeking to banish the bitterness of a polarised election campaign, Mr Duque promised to “govern Colombia with a spirit of construction, never destruction”.

That was not the tone used by Ernesto Macías, the president of congress, who introduced Mr Duque and administered the oath. Mr Macías, a member of Mr Duque’s Democratic Centre party, attacked the former president, Juan Manuel Santos, and vowed to modify the agreement that in 2016 ended a 52-year war with the FARC guerrilla group.

The contrast illustrates the main political difficulty that the new president will face: keeping the support of his party, which is militantly opposed to the peace accord, while courting other forces to enact his legislative priorities, including reform of the pension system, making courts more efficient and cutting taxes.

The key to controlling Democratic Centre is co-operation with Álvaro Uribe, a former president who has been Mr Duque’s political patron. The new president has appointed favourites of Mr Uribe to lead the ministries of defence, interior and finance. In July Mr Uribe resigned from his seat in the senate after the supreme court called him to testify about allegations that he had bribed witnesses to retract their claim that he is linked to the AUC, a paramilitary group that disarmed during his presidency. Mr Uribe denies the allegations. He suspended his resignation after his lawyers asked that three supreme-court justices, whom they consider biased, stand aside from the case. But as long as the ex-president’s future is cloudy, Mr Duque’s relations with his party will be unsettled.

On matters of war and peace, Mr Duque has signalled that he is prepared to soften the tough line that Mr Uribe favours, but only a bit. In his speech Mr Duque said his government would consider continuing peace talks with the ELN, a guerrilla group that is still fighting, only if it declared a unilateral ceasefire. The ELN is sure to reject this, but Mr Duque’s demand looks like a retreat from his earlier position that the group would have to gather in designated ►►

► zones before talks could begin.

Days after his election on June 17th, congressmen from Democratic Centre called for a referendum on transitional justice, the controversial part of the peace deal under which former guerrillas are to confess their crimes in return for light sentences. The incoming vice-president, Marta Lucía Ramírez, made clear that the government did not support the plan.

On coca, an illegal crop exploited by the ELN and other armed groups, Mr Duque must consider the views of the United States as well as of Mr Uribe. Nikki Haley, the American ambassador to the UN, who

attended the inauguration, said President Donald Trump wants Colombia to reduce the area on which coca is grown, which reached a recent high of 209,000 hectares last year. “We have faith in the fact that [Mr Duque is] going to deliver,” she said.

The government will step up forced eradication of coca, including by sending drones to spray crops. That is bound to provoke conflict with farmers; last year they paralysed large parts of the country in protests against eradication. A clash over coca would intensify the polarisation Mr Duque is eager to lessen.

In other areas he has a freer hand. Most

members of his cabinet are technocrats (and half are women). His choices show that he means to end the *marmelada* (literally, jam; figuratively, buying the support of parties with jobs for politicians). But that high-minded policy has risks. Congressmen who do not get government jobs will have little incentive to support such unpopular but necessary measures as raising the retirement age. The new ministers also risk looking out of touch with ordinary Colombians. “Most of the cabinet lives in two high-class neighbourhoods of Bogotá,” notes Héctor Riveros, a political consultant. The gusts are just beginning. ■

Bello | The perils of Nicolás Maduro

A drone attack shows that the Venezuelan president is vulnerable

IT MAY be sinking ever deeper into slump, misery and corrupt dictatorship, adorned only by threadbare revolutionary rhetoric, but Venezuela has retained a surprising stability. Over the past 18 months Nicolás Maduro, the president, has pulverised the democratic but divided opposition. Most of Latin America did not recognise the rigged election in May in which he arranged another six-year term for himself, but the region has not taken any action to bring about the democratic transition it wants.

And yet Mr Maduro is far from invulnerable. That was dramatically highlighted on August 4th, when an apparent assassination attempt against him played out on live television. There is still much that is murky about the incident, in which two drones carrying explosives flew towards Mr Maduro as he was speaking at a ceremony of the paramilitary National Guard in central Caracas. One ricocheted against a block of flats, starting a fire. The other was supposedly shot down. Officials said that seven people were injured.

Mr Maduro blamed the “far right”, Colombia’s outgoing president, Juan Manuel Santos, and shadowy forces in Miami. He has denounced a score of plots since he took over from the late Hugo Chávez in 2013. This time, as before, he offered no evidence that foreign powers were involved. Colombia’s government dismissed the claim as “absurd”. Some in the opposition believe that Mr Maduro’s regime staged the event to rally its own flagging supporters and provide a pretext for a crackdown. At a congress of the ruling party last month there was open criticism of Mr Maduro’s management of the economy. This week the government detained an opposition legislator and ordered the arrest of Julio Borges, an opposition leader in exile in Colombia.

But the regime probably did not attack itself. Dictators depend on projecting an image of omnipotence. In the television footage, Mr Maduro looked befuddled; the massed ranks of the National Guard broke discipline and ran off in panic. And Mr Maduro has rarely required an excuse to crack down. His security forces killed many of the 160 protesters who died last year. His regime’s dungeons hold more than 250 political prisoners, some of whom have suffered torture. Dozens have fled into exile to avoid arrest.

The main opposition parties condemned the attack. But a group calling itself Soldiers in T-shirts claimed it. The group is linked to Óscar Pérez, a police captain who led a brief guerrilla attack on the regime and was killed by government forces while trying to surrender. A former municipal police chief who says he is part of “the resistance” to Mr Maduro said he was involved in the drone attack. Such groups are small, and the attack looked amateurish. But it is unlikely to be the last attempt to unseat Mr Maduro.

That he has lost the support of his people was clear when the opposition

trounced him in a legislative election in 2015, prompting him to rule as a dictator. Three things have sustained him since then: oil revenue, the armed forces and Cuban security aid. He can no longer be certain of the first two.

Mainly to keep the armed forces happy, in November he handed control of the oil industry to a National Guard general with no relevant experience. According to OPEC estimates, oil production has fallen to 1.3m barrels per day, down from 2m in October. That is one of several ways in which Venezuela is becoming a failed state. It is suffering hyperinflation (prices are doubling every 25 days). The regime uses subsidised food to secure loyalty. But it now faces a vicious circle: for many employees, devalued wages no longer cover the cost of getting to work on a collapsing public-transport system. Oil workers are resigning in droves, some joining perhaps 2m Venezuelans who have emigrated since 2015. Mr Maduro has partially lifted exchange controls in a seeming attempt to boost remittances from those migrants, and has promised a new currency. That won’t be enough to tame inflation.

Despite the generals’ privileges, many in the army suffer privations, too. Discontent in the ranks has grown. Dozens of officers have been arrested over the past year or so, including generals who were close to Chávez. The only thing preventing a coup against Mr Maduro is his team of Cuban spies. The intelligence services broke up a serious plot in May.

Mr Maduro leads the pro-Cuban faction in the regime. Another has closer ties to the armed forces. By blocking democratic change and by failing to halt Venezuela’s decline, Mr Maduro has made himself vulnerable to removal by force. That could happen tomorrow—or never. Uneasy lies the head that fears a drone.





America and Iran

The pain of no deal

CAIRO

American sanctions bring more agony to Iran's suffering economy

IT TOOK two years to negotiate a nuclear deal with Iran—and a few strokes of a pen to undo it. On August 6th President Donald Trump signed an executive order restoring sanctions aimed at Iran's car industry, its trade in gold and its access to dollars, among other things. It makes good on the president's promise to withdraw from the deal, signed in 2015, which gave Iran sanctions relief in exchange for limits on its nuclear programme. The sanctions will hurt. Whether they will accomplish anything else is up for debate.

Contrary to his campaign promise, Mr Trump cannot unilaterally “tear up” the deal. It has five other signatories: Britain, France, Germany, Russia and China. All say it is working, an assessment backed by the International Atomic Energy Agency, which certifies Iran's compliance.

In an effort to preserve the agreement, the European Union has instructed EU firms not to comply with the sanctions and allowed them to sue in court to recover damages resulting from America's action. But few think the so-called “blocking” measure will work. Firms are taking seriously Mr Trump's threat that anyone doing business with Iran will not be allowed to do business with America. Total, a French energy giant, is almost certainly quitting a \$2bn deal to develop Iran's massive South Pars gasfield. Airbus may halt the planned delivery of 100 passenger jets. American firms, such as Boeing, which lost a \$20bn

contract, are already out of the door.

For months the looming sanctions and expected capital flight have exacerbated a currency crisis in Iran. Last summer a dollar fetched about 38,000 rials on the black market (the official rate has long been out of touch with reality). Since then the rial has lost more than 60% of its value. On July 30th it bottomed out at 119,000 rials to the dollar, a record low. Prices of some staple foods have increased by up to half.

Eager for a scapegoat, the president, Hassan Rouhani, sacked the central-bank governor and his deputy who oversaw foreign exchange. Ahmed Araghchi, the deputy, who served for barely a year, is the deputy foreign minister's nephew. His bumbling tenure was one example of the nepotism that plagues Iran, which ranks near the bottom of Transparency International's corruption index. Mr Rouhani has tried to make a show of arresting corrupt businessmen and politicians. Dozens of bankers have been jailed for dodgy loans.

Persian empires

But Iran's problems run much deeper than a few dirty officials. Large chunks of the economy are dominated by bloated quasi-state enterprises. Take Astan Quds Razavi, a charitable trust, or *bonyad*, in the north-eastern city of Mashhad. It was founded in the 16th century to maintain the shrine of a revered imam. Today it has more earthly concerns: mines, an oil company, even an

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insurance firm. By its own estimate, it controls 41% of the land in Mashhad. The *bonyads* sit on vast wealth, all of it tax-exempt. A single Tehran-based trust is thought to control some \$13bn in assets, twice as much as the Vatican's bank.

Every branch of the state has its own economic empire. Beneath Tehran, workers are digging the seventh line of the city's metro. The lead contractor, Sepasad, is under American sanctions. The US Treasury says it is run by Iran's Revolutionary Guards Corps (IRGC). It awarded much of the tunnelling to the Hara Company, also allegedly run by the Guards. If these firms need construction materials, they can turn to other IRGC-linked companies that make cement and steel. The state and the *bonyads* also control 40% of Iran's private banks, many of them undercapitalised.

Mr Rouhani oversold the benefits of the nuclear deal, promising a flood of new investment. Even before Mr Trump took office, foreign firms were skittish about doing business in Iran. It is hard to compete with vertically integrated empires run by clerics or the IRGC. Iranians were already frustrated with the stagnant economy. Now it will get worse—especially in November, when America reimposes sanctions on Iran's oil industry. Mr Trump's predecessor, Barack Obama, did the same, in partnership with allies, and the volume of Iran's oil exports fell by 58% between 2011 and 2014.

Mr Trump says he wants a better deal, one that limits Iran's ballistic-missile programme and does not expire in a decade. It is hard to see how he will achieve that. Far from working with allies, he scorns them. He has a fanciful goal of bringing Iran's oil exports, currently 2.5m barrels per day, down to zero. But India is looking for alternative payment methods to keep at least some of its 768,000 barrels per day from Iran flowing. Turkey says it will not comply ►►

Jerusalem's holy sites

Beware of falling rocks

JERUSALEM

Is the Western Wall falling down?

EVER since the Roman army tried to topple it in the 1st century, knocking a few slabs from the top, the Western Wall in Jerusalem has remained largely intact. A relic of the second Jewish temple, most of which the Romans did destroy, the wall attracts thousands of Jewish worshippers each day. One called Daniella Goldberg was standing in front of it when a big slab of the wall came crashing down next to her on July 23rd.

Ms Goldberg was unharmed, but engineers were left wondering if worse is to come. Several explanations have been put forward as to why the slab broke off. Rainwater erosion and recent seismic activity may have loosened the wall's stones. A study done in 2014 found that some parts of the wall were eroding

much faster than others. Vegetation growing in the wall's cracks could be exacerbating the problem. In 2004 pieces of the wall fell off, injuring a worshipper, in part because birds stuck metal objects into the cracks, causing erosion.

It will take more intensive surveys, using laser measurements and underground sonar, to determine the exact cause of the falling stone and the risk that more will follow. In the past, efforts have been made to shore up the wall using special adhesives and concrete. But more extensive work would have to be co-ordinated with the Muslim religious authority, controlled by Jordan and known as the Waqf. It runs the Haram al-Sharif compound (known to Israelis as the Temple Mount) on the other side of the wall. Muslims consider the Western Wall part of the al-Aqsa mosque.

Tension between Israel and the Palestinians is high, such that the director of the al-Aqsa mosque, Omar al-Kiswani, felt it necessary to deny that anyone on his side pushed the rock that nearly hit Ms Goldberg. Yousef Natshe, the Waqf's chief archaeologist, says publicly that he will not co-operate with the Israelis on fixing the wall. Privately, though, Mr Natshe and Israeli archaeologists exchange information so that each party can carry out work on its side.

As engineers search for earthly solutions, rabbis in Jerusalem see a warning from God. They think He objects to plans to allow men and women to pray together at the wall, near where the stone fell. "For the stone shall cry out of the wall," cautions one rabbi, quoting Habakkuk, a rather gloomy prophet.



Between a rock and a holy place

▶ with the sanctions. And China, which buys a quarter of Iran's crude, is happy to play spoiler. CNPC, a Chinese state-run energy behemoth, has reportedly offered to pick up Total's share in the South Pars field.

The president has offered to meet Iran's leaders, perhaps hoping for a reprise of his summit with North Korea's dictator, Kim Jong Un. Iran is cool to the idea. So the administration has fixed its hopes on the protests roiling the country. Small groups come out almost every day to complain about the economy. "We would like to see a change in the regime's behaviour, and I think the Iranian people are looking for the same thing," says an American official.

On this, the White House and the IRGC are in rare agreement. The commander of the Guards calls the protests "more serious

than threats from abroad". But, though they are persistent, the protests are also small and leaderless. Iran has no coherent opposition to challenge the regime.

At the beginning of the summer, residents of Khorramshahr province found themselves without water. The government arrested protesters, and then dispatched the Guards to install a 90km water pipeline. It was a telling sign. Mr Rouhani had hoped to weaken the IRGC's grip on both politics and business. He failed. His relatively moderate government will now have to work with the arch-conservatives. This will not make Iran more amenable to Western interests, nor more responsive to its own people. Mr Trump may get a change in the regime's behaviour—but not the one he says he wants. ■



Canada and Saudi Arabia

Meddlesome maple leaves

CAIRO AND OTTAWA

Saudi Arabia picks a pointless fight with Canada

QUEBEC'S proudly Francophone separatists may want to learn some Arabic. On August 5th, as Canadians enjoyed a long weekend, Saudi Arabia abruptly expelled their ambassador and froze bilateral trade and investment. Its state-run funds have reportedly been ordered to dump their Canadian assets, no matter how much it costs to do so. The kingdom is angry about tweets from Canada's foreign minister, Chrystia Freeland, criticising the arrests of Saudi human-rights activists. For Saudi Arabia, this was unacceptable "foreign interference".

If anyone is qualified to opine on meddling abroad, it is the Saudis. Since 2011 they have helped quash an uprising in Bahrain, backed a coup in Egypt and detained Lebanon's prime minister. If Canada keeps up its criticism, "we are allowed to interfere in Canada's internal affairs," the Saudi foreign ministry warned. Canadian diplomats joked about the kingdom arming Québécois rebels.

A legion of Saudis took to Twitter to voice their (no doubt long-held) sympathy for indigenous Canadians. Others attacked Canada's record on women's rights. This was a co-ordinated effort, and a clumsy one. An account reportedly linked to the kingdom warned Canada not to "stick its nose where it doesn't belong". The message was superimposed on a photo of the Toronto skyline, with a plane flying ominously towards the CN Tower. Someone apparently realised this was a bad look for the country that produced most of the 9/11 hijackers. The account was quickly closed. ▶▶

► The damage to Canada will be slight. Its exports to Saudi Arabia were worth \$1.1bn in 2017 (0.2% of the total value of Canadian exports), mostly from a \$12bn multi-year arms deal. It imported \$2bn of Saudi goods, mostly petroleum. The first to suffer will be nearly 10,000 Saudi students in Canada. The kingdom told them to study elsewhere. It also plans to pull Saudi patients from Canadian hospitals.

Absurd as it is, the spat is a warning to Saudi Arabia's other allies: keep quiet about our policies or lose access to our market. Canada was an easy target. "We are always going to speak up for human rights," says Ms Freeland. But allies are not rushing to speak up for Canada, least of all America. Donald Trump is close to the Saudis and mired in a trade war with Canada.

The spat also serves a domestic purpose for the Saudi crown prince, Muhammad bin Salman, who wants to refashion Saudi society. In mere months he has lifted the ban on women driving, opened cinemas and allowed public concerts. This risks a backlash from conservative clerics, so he is keen to fashion a new Saudi nationalism. Aggressive foreign policies, from the blockade of Qatar to the war in Yemen, help do that. However, they also reinforce his image as a rash and reckless leader. The crown prince needs foreign investment to wean the Saudi economy off oil. A feud with the cuddly Canucks will not help attract it. ■

Zimbabwe after the election

Open for chaos

HARARE AND JOHANNESBURG

A violent crackdown exposes the instability of the Mnangagwa regime

IN THE early hours of August 5th four men broke into a house in eastern Zimbabwe known to be home to activists for the MDC Alliance, the country's main opposition bloc. They dragged the husband and wife outside before beating them with sticks on their back and buttocks. Two of the assailants took turns raping the wife; the other two raped the husband. All the while the children of the couple watched.

After holding peaceful elections on July 30th Zimbabwe has again descended into violence. At least six people were killed on the streets of the capital two days after the vote. Since then human-rights groups have recorded more than 150 alleged cases of abuse against opposition supporters (including that of the husband and wife above), most seemingly at the hands of soldiers. The true figure is almost certainly many times higher. Hundreds of MDC members have fled their homes, including



Who ordered this?

Tendai Biti, one of the bloc's senior figures, whose claim for asylum in Zambia was rejected on August 8th.

For some the violence is not just grim, but odd. Since taking power via a coup last November, President Emmerson Mnangagwa has sought to convince the world that Zimbabwe is "open for business" following nearly four decades of misrule by Robert Mugabe. The culmination of this plan was meant to be a convincing victory in the election, which even if neither free nor fair, would be orderly enough to win him the blessing of foreign governments. They would then encourage creditors to lend the country much-needed foreign currency. Instead there is mayhem. When not shooting civilians in the back, Zimbabwe's ruling elite seems to be shooting itself in the foot.

Zanu-PF, the party of Mr Mnangagwa, has a history of thuggery. Mr Mugabe once boasted: "We have degrees in violence." But the recent brutality is probably made worse by the fact that the ruling elite is far from united. Both Zanu-PF and the myriad security forces are fragmented. So while some factions may lose from chaos, others believe they will gain. So goes the macabre struggle for power and spoils.

In his election campaign Mr Mnangagwa tried to portray himself as an all-powerful leader. But his control over his own party remains fragile. The so-called G40 faction, associated with Grace Mugabe, Robert's second wife, remains influential, well funded and keen for Mr Mnangagwa to fail. At the local level it has been hard for the president to exert authority. There were two dozen riots during the primary elections for Zanu-PF candidates. Some newly elected members of parliament, such as Webster Shamu, have repeatedly clashed with Mr Mnangagwa. Overall only about a quarter of new members are incumbents. No one knows how the newcomers will wield their power.

Neither is there unity between the armed forces and Zanu-PF, nor among the men in uniform themselves. The agitator-in-chief, according to several sources, is Constantino Chiwenga, the vice-president and minister of defence, who is rumoured to want one day to replace Mr Mnangagwa. The former commander of the Zimbabwe Defence Forces (ZDF) played a pivotal role in the coup last year, but has struggled to adapt to political life. (He tried to fire thousands of striking nurses before realising that was not possible.) It is he, rather than the current head of the ZDF, Philip Sibanda, who is believed to have instigated the crackdown on August 1st, out of frustration that others have been too soft on the MDC. Mr Chiwenga speculates that his critics are high on weed.

The president may be weaker than many assume, but he is not innocent. Mr Mnangagwa reportedly co-ordinated the post-election violence in 2008-09. It is implausible to claim, as his allies do, that he knows little of what is happening now.

The MDC is challenging the legality of Mr Mnangagwa's first-round win in the presidential race on July 30th. But given the partisanship of Zimbabwe's judges, defeat looks certain. Therefore Mr Mnangagwa will be sworn in again as president before the end of the month. He will do so amid growing mistrust among foreign governments and would-be investors. And with more blood on his hands. ■

Mozambique

Burnings and beheadings

A bubbling Islamist insurgency could grow deadlier

RESIDENTS of Naunde village were woken by gunshots at around 2am on June 5th. Two of the attackers carried guns. The other three, armed with machetes, set houses on fire. Then they chased down a local chief and hacked off his head in front of horrified neighbours. They also killed six others, including an Islamic leader whom they beheaded in a mosque.

The attack, documented by Human Rights Watch, a pressure group, is one of several dozen carried out by jihadists in Cabo Delgado—a mostly Muslim, coastal province in Mozambique's far north—since October 2017. Recently many have followed a similar pattern: hit-and-run raids during which attackers torch houses, steal supplies and behead victims. In May terrorists decapitated ten people, including children. Officials have tried to brush off the violence as mere banditry. But the attacks appear to be increasing. ►►

Who the killers are and what they want is not entirely clear. Uncertainty surrounds even their name. They are known as Ahl al-Sunnah wal-Jamaah (Arabic for “followers of the prophetic tradition”), though locals also refer to them as al-Shabab (“the youth”). They have no known ties to the jihadist group in Somalia, which is also called al-Shabab, but some researchers think the jihadists in Mozambique have received training abroad.

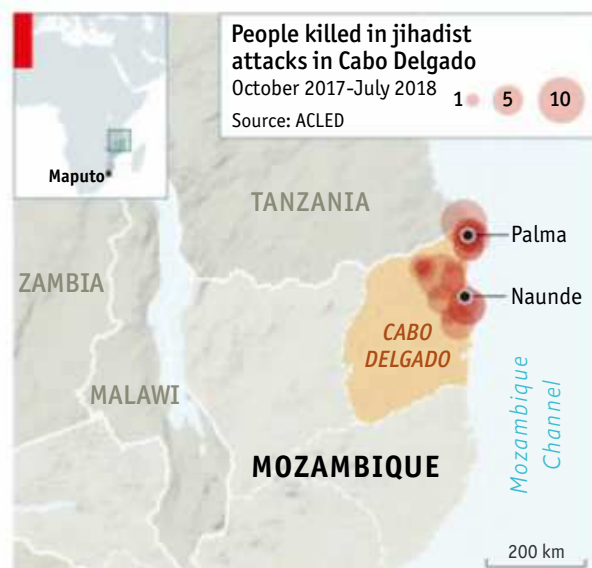
Beyond touting a strict form of Islam, the group’s political agenda is rudimentary. According to Joseph Hanlon of the London School of Economics, Ahl al-Sunnah wal-Jamaah emerged when groups of street traders, united by economic frustration and radical Islam, came together in 2015. They urged people not to pay taxes or send their children to state schools—and they stormed into mosques, knives waving, to lambast local Islamic practices.

For years locals complained about the growing number of angry young men in their midst. But Mozambique’s corrupt and listless authorities did little. The group’s first attack, last October, took officials in the capital, Maputo, by surprise.

Cabo Delgado should be booming. Companies such as Anadarko and Eni are investing some \$50bn (around four times Mozambique’s annual GDP) in the region to exploit gas reserves found in 2010. Gemfields, a British firm that makes gem-encrusted eggs, arrived in 2011 to mine what is said to be the world’s biggest ruby deposit.

But locals say they have seen little benefit. Cabo Delgado still lags behind Mozambique’s more prosperous south. Many of the jobs created by the gas finds go to highly skilled expatriates, not to locals, who are mostly illiterate. Young people in Palma, a town at the centre of the gas projects, protested in May, claiming that their job applications are ignored.

Adding to the misery are reports of ruby-related land grabs. In London lawyers are pursuing cases against Gemfields on behalf of over 100 small-scale ruby miners, who claim they were shot at, beaten up and sexually abused by police officers and the company’s security guards.



Ahl al-Sunnah wal-Jamaah is not expected to hamper the region’s gas projects. But what happens next may depend on the state’s reaction. So far it has beefed up security and arrested hundreds of suspected jihadists. Eric Morier-Genoud of Queens University Belfast compares Cabo Delgado to north-east Nigeria during the early days of Boko Haram. There a heavy-handed crackdown helped transform a radical religious sect into one of Africa’s deadliest terror groups. The hope is that northern Mozambique does not go the same way. ■



Congo

Say it’s so, Joe

The president says he will not run again, but will he give up power?

THE Democratic Republic of Congo has never had a peaceful transition of power. Mobutu Sese Seko, the president from 1965 to 1997, fled his jungle palace shortly before it was ransacked by looting soldiers; his successor, Laurent Kabila, was shot by one of his bodyguards. So the country has been on edge as an election, scheduled for December 23rd, draws closer. It is already grappling with an outbreak of Ebola and armed conflicts in ten of its provinces.

The big question was whether Joseph Kabila, the unpopular president (pictured), would run again. Mr Kabila inherited the job from his father, Laurent, in 2001. He is accused of corruption, incompetence and human-rights abuses. The constitution required him to step down when his second term ended in 2016, but he stayed on, citing a clause that allowed him to remain president until a new one was elected. He then repeatedly delayed elections and cracked down hard on those who protested.

As other candidates registered their names ahead of the August 8th deadline, Mr Kabila waited until the last moment to announce that he would not run again. Instead the coalition that includes his party, the People’s Party for Reconstruction and Democracy (PPRD), will put forward Emmanuel Ramazani Shadary, who is the PPRD’s permanent secretary. Many see the 57-year-old former interior minister as a potential puppet of Mr Kabila.

Mr Shadary’s strongest rival is likely to be Jean-Pierre Bemba, a former vice-president and, before that, a rebel leader. Mr Bemba’s conviction for war crimes was overturned on June 8th after he had served ten years in prison in The Hague. He had previously been held responsible for an epidemic of murder, rape and pillage committed by fighters under his command. Tens of thousands of people lined the street from the airport to celebrate Mr Bemba’s return to Congo on August 1st.

Mr Kabila was less enthused. Fearing unrest, the police blocked the road to Mr Bemba’s house in Kinshasa, which is close to the president’s residence. Then they dispersed Mr Bemba’s supporters using tear gas and rubber bullets. One man was killed when a police car ran over his head.

Mr Bemba narrowly lost to Mr Kabila in an election in 2006. His supporters celebrate the fact that his parents are Congolese, while claiming that Mr Kabila’s mother was Rwandan, which he denies. “Congolais, 100%”, they say. Even while in prison he met with opposition leaders and stayed abreast of Mr Kabila’s actions. “He never lost his self-assurance,” says one visitor. “He used to treat his jailers as if they were his personal bodyguards.” Some liken Mr Bemba, absurdly, to Nelson Mandela: released from prison to save his flailing country from misrule. His opponents want to bar him from running based on a second conviction, which was not overturned, of witness tampering.

As Mr Bemba was registering with the electoral commission (a privilege that costs \$100,000), another potential candidate was being barred from entering Congo. In 2016 Moïse Katumbi, a former governor of mineral-rich Katanga province, was sentenced in absentia to three years in prison for property fraud. He had gone to Belgium shortly after falling out with Mr Kabila, whom he accused of twisting the constitution to stay in power. The president’s powerful former ally, who would have been Mr Shadary’s biggest rival, was told he would be arrested if he tried to come home. Still, he tried twice, unsuccessfully.

The electoral commission is now reviewing the list of presidential candidates, which will be announced on September 19th. Until then Congo holds its breath. If Mr Bemba’s candidacy is annulled, making way for Mr Shadary, the country might be in for even more bloodshed. ■



Student protests in Bangladesh

High-school vigilantes

DHAKA

A rally against road deaths roils a weak and repressive state

“LOOK at the lanes!” exclaimed an astonished bystander from a bridge above one of Dhaka’s main roads. For a week a miraculous transformation settled upon the motorised anarchy for which the Bangladeshi capital is notorious. The streets were still gridlocked with vehicles, from battered buses and little tuk-tuks to the four-wheel-drives of the elite. Yet beneath the bridge and elsewhere, the traffic crawled in neat, well-behaved lanes. Darting between them, students in high-school uniforms, acting as self-appointed traffic police, checked drivers’ licences and even distributed food to those stuck in jams. Dhaka had never seen anything like it.

The school-age vigilantes, numbering in their thousands and soon joined by university undergraduates, imposed order on Dhaka’s traffic into early August. This was a powerful form of impromptu protest, sparked when a speeding private bus, racing against another to pick up passengers, ploughed into a crowd at a bus stop on July 29th, killing a girl and a boy. Bangladesh has extremely high numbers of road deaths. A vehicle in Bangladesh is 30 times more likely to be involved in a fatality than one in Norway, while the number of cars on Dhaka’s roads has more than doubled since the 1990s. Adolescents are disproportionately at risk. There is no urban speed limit, and no money in the national budget for the agency responsible for road safety. Half of all vehicles are reckoned to be un-

registered, and many drivers to lack a licence. Among traffic police, bribe-demanding far exceeds enforcement. By contrast, some students are calling for the death sentence for drivers who kill. Priban, a 17-year-old, says those killed at the bus stop “could have been any one of us.”

The government of Sheikh Hasina Wajed, the prime minister, was quick to divine the black hand of the opposition behind the protests. Although everything suggests they arose spontaneously, a political dimension is hardly surprising. A road-safety bill had gathered dust for years. And the arrogance of Sheikh Hasina’s government is overbearing. One of her ministers, Shahjahan Khan, when asked by reporters about the two bus-stop deaths, grinned and answered: “A road crash has claimed 33 lives in India’s Maharashtra [state]. But do they talk about it the way we do?” It is, Priban concludes, “like our lives don’t matter.” To their list of demands, students added Mr Khan’s resignation. As minister, he has kept his post as the head of the Bangladesh Road Transport Workers’ Federation—a clear conflict of interest.

“Ministers and police should be sent to school and we’ll run the country,” was one of the students’ slogans. Strikingly, the ruling Awami League (AL) responded to the protests as if they were a mortal threat to Sheikh Hasina’s increasingly authoritarian rule. First it closed schools and universities (and, intermittently, the internet). Then it

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Banyan is away

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denounced the protesters, before going after them on August 4th. Meg, a 21-year-old student at Dhaka University, said he was part of “an absolutely non-violent protest” when he and his friends got tear-gassed. Rubber bullets were also fired into student gatherings. Stick- and machete-wielding thugs from the AL’s youth wing, the Chhatra League, backed up police in attempts to frighten protesters off the streets. Unidentified goons attacked the cavalcade of the American ambassador as she returned from a dinner with liberal critics of the AL government.

Sheikh Hasina, street cleaner

With the head-cracking, Sheikh Hasina has got her way. By August 8th few students remained on the streets—Priban’s parents forbade her to protest once the state-backed violence mounted. Hundreds have been injured and arrests have been made, including of a prominent photographer and activist, Shahidul Alam. He was picked up from his home on August 5th, beaten up in police custody and charged with “spreading propaganda and false information against the government” following an interview with al-Jazeera, a Qatar-based television channel, in which he was supportive of the students and critical of the government. A high-court judge who this week ordered him to be transferred to hospital said grimly that Mr Alam was fortunate not to have been “disappeared”. Over the years, critics of Sheikh Hasina have simply vanished.

The crackdown on these unprecedented teen protests comes just five months before a general election that Sheikh Hasina seemed bound to win. She has, in effect, done away with the opposition since returning to power in 2009. Her arch-rival, Khaleda Zia, leader of the main opposition, the Bangladesh Nationalist Party ►►

▶ (BNP), is in prison on corruption charges that her backers say are politically motivated. The BNP boycotted the last general election, in 2014. For the next one, Mrs Zia wants the army deployed to protect voting, as well as Parliament dissolved and an impartial interim government formed to organise the poll, as used to happen. The AL refuses. Yet to boycott the election a second time would, according to electoral rules, lead to the BNP's dissolution. Perhaps, in the students, the BNP sees dissatisfaction upon which it can capitalise.

The Awami League does not want Ban-

gladesh's children to upset its plans for a long rule. Yet two-thirds of the country's population are under 35, and the feelings of students count. Not only do they fear for their safety but they sense they will be frozen out of job opportunities which fall only to the politically well-connected. Abrar Chowdhury of Dhaka University believes insensitive handling has turned an "innocuous low-key demand for reform" of public transport into an anti-government movement. "Our generation has failed," he says. The students, by contrast, are "reclaiming the state for everyone". ■

Tourism in Indonesia

Build, and they shall come

JAKARTA

A series of disasters casts a shadow over a booming industry

ON AUGUST 6th the Indonesian island of Lombok was shaken for the second time in ten days. A 6.9-magnitude earthquake struck the tourist haven, razing buildings, shattering roads and cutting off electricity. A government-issued tsunami warning added to the panic, sending people running for higher ground, though the ensuing wave proved small. Thousands of people have been evacuated. Crowds gathered on the beaches of the Gili Islands, off Lombok's north-west coast, to be shipped to safety. The quake killed 347 people and injured over 1,000. A smaller tremor which hit days before claimed 17 lives. Another struck on August 9th.

Several disasters have buffeted Indonesia's tourist spots in recent months. In late June Mount Agung on the neighbouring island of Bali began spewing ash and lava. Flights were grounded, leaving thousands of visitors stranded. Indonesia runs along the Pacific Ocean's "ring of fire", with 130 active volcanoes. Tectonic events are common. Of 164 earthquakes around the world since 2017 with a magnitude of 6 or more, 12 took place in Indonesia.

Other concerns loom over the tourism industry, too. In June a ferry capsized on Lake Toba, a pristine destination on Sumatra, drowning 180 people. Officials later declared that the boat was grossly overcrowded. A rise in terrorism since 2014 is also a worry, even if tourists have not been directly targeted (as they were in the Bali bombing of 2002, when jihadists murdered over 200 people, most of them foreign holidaymakers).

The risks aside, Indonesia is blessed with white beaches, exotic wildlife and eight UNESCO world-heritage sites. Marketing campaigns, better access to airports and a loosening of visa rules have boosted

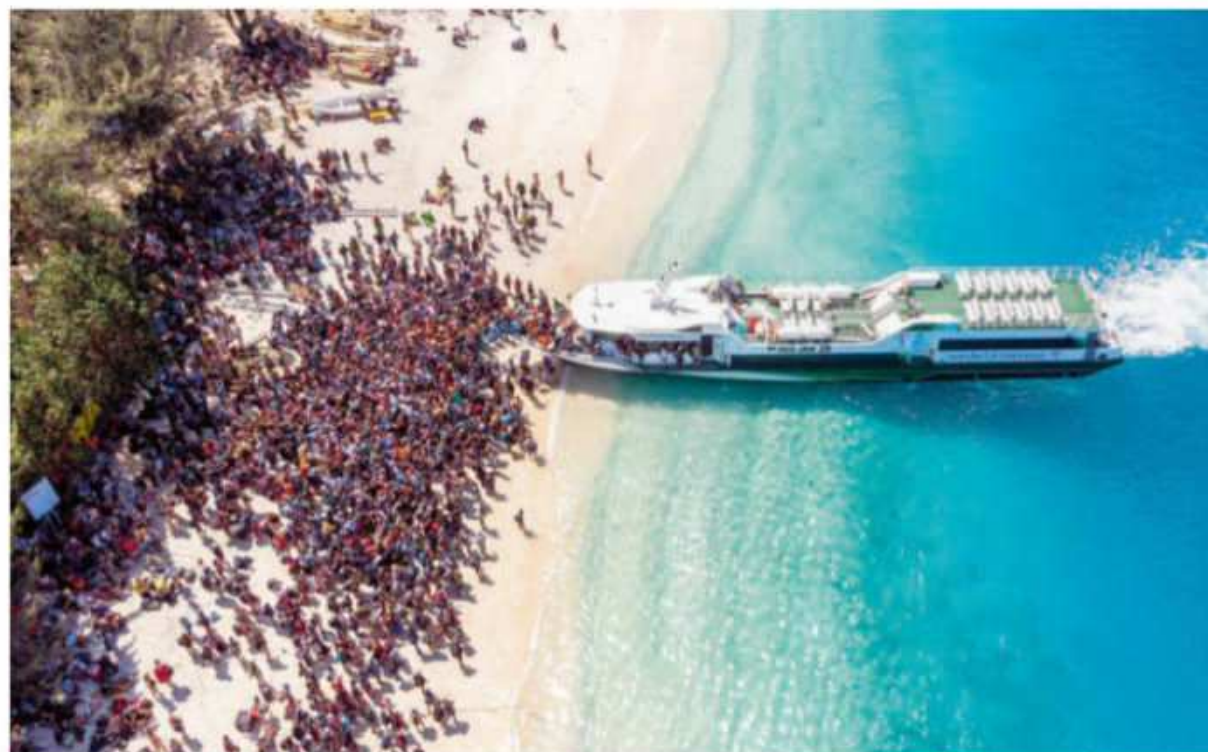
the number of annual visitors, from 7m in 2010 to 14m last year. The government wants an annual 20m visitors by 2020, increasing tourism's contribution to GDP from 5.8%, less than half the regional average, to 7.5%. Much of the growth is coming from Chinese holidaymakers, who have been lured away from Thai beaches. They account for about 14% of visitors, double the proportion in 2010.

Though Indonesia has 13,000 or so islands, two-fifths of its tourism to date is concentrated on just one: Bali. (Many Australians holidaying there, when asked whether they have ever been to Indonesia, reply no.) In 2017, in an effort to spread the gains from tourism, President Joko Widodo, or Jokowi, announced a policy to roll out Bali's success across the rest of Indonesia—his "ten Balis" plan.

In some quarters, including in the government, the plan has caused concern, in particular about the potential damage to the environment. Bali itself has problems with ugly development, untreated sewage spewing into the ocean and plastic waste littering the beaches. Some of Jokowi's designated spots are nature reserves with fragile ecosystems. The national park near the town of Labuan Bajo on Flores, for instance, is home to Komodo dragons as well as a rich sea life; tourism could ruin special habitats if not carefully regulated. On August 1st a fire burned ten hectares of vegetation in the park. Police suspect a visitor's discarded cigarette.

Another hurdle to the plan is Indonesia's woeful infrastructure. The government estimates it needs \$20bn to spruce up all ten proposed spots, half from foreign investors. The government has built seven new airports since 2014 and plans another eight in the next two years. More flights are arriving at the airport close to Lake Toba, one of the new Balis. That saves an hours-long drive from Medan, the nearest city. The runway has been extended at Labuan Bajo too. But access to other designated sites has not improved, says Matt Gebbie of Horwath HTL, a tourism consultancy.

A shortage of hotels looms in at least four of the ten destinations, according to the Indonesian Hotel and Restaurant Association. Lake Toba needs another 2,000 rooms (with the strain on resources that would come with them, it is hard to know how the lake can remain pristine). Even where there are ample rooms, finding qualified hotel staff to ensure guests' pillows are fluffed and cocktails are iced may be tricky. The government is working with 100-odd colleges to train a new generation of hoteliers, says Hiramayah S. Thaib, the head of the ten-Bali programme at the tourism ministry. Madam may have to wait a bit longer for a turndown service. ■



Not the Gili beach party some imagined



An Antipodean tiff

Kicking Kiwis out

SYDNEY

New Zealand bemoans Australia's deportation regime

NEW ZEALAND'S deputy prime minister, Winston Peters, knows how to stir the pot. In the midst of a diplomatic tiff with his country's biggest and usually chummiest neighbour, he suggested that Australia was in need of a new flag. Its current one, he complained, too closely "copied" New Zealand's. Since the two ensigns are so similar, Australia's should be the one to change. (Australia's flag was designed first, but was formally adopted a year later than New Zealand's, in 1903.) Mr Peters, who recently served as interim prime minister while Jacinda Ardern was on maternity leave, has a solution: an enormous kangaroo, "like the maple leaf in Canada".

The tiff is over Australia's increasing deportations of New Zealanders. In 2014 a conservative prime minister, Tony Abbott, tightened deportation rules. Any foreigner sentenced to a year in jail now fails a "character test" and has to leave the country. Kiwis may live and work freely in Australia. Since about 650,000 do so, the rule hits them the hardest. Since the law was changed, at least 1,200 New Zealanders have been cast back across the Tasman Sea. Oz Kiwi, an advocacy group, estimates that around 170 New Zealanders are currently in detention centres awaiting deportation, more than any other nationality.

Australia makes no concessions for those who came as children but never changed their passports. Neither does it for juvenile offenders, or petty criminals with short sentences that cumulatively add up to 12 months, even if those were suspended. Historic crimes were once ignored, but

the law now works retroactively, counting ancient infringements committed overseas as well as recent ones in Australia.

Some prior offenders are stopped at airports. Australian authorities catch others, like Tommy Murray, a former biker, inside the country. He did four stints behind bars for crimes including drugs and burglary before moving to Australia. He says he lived law-abidingly for 16 years and paid A\$1.2m (\$890,000) in tax before his past caught up with him. In detention, he argues he was refused much-needed medication, then booted out without being able to see his family. "My country treated him barbarically," says his Australian wife Sara, who followed him.

New Zealand politicians periodically grumble about Australian deportations, but the political mood between the two countries soured markedly when a 17-year-old was recently thrown into an adult detention centre in Melbourne. The deportations had "a venal political strain" to them, said New Zealand's justice minister, Andrew Little; Australia "doesn't look like our best friend, our nearest neighbour." Australia, Mr Peters added, was in breach of the UN convention on children's rights.

The 17-year-old has since been released, but critics also raise questions about racial fairness. New Zealanders of Maori or Pacific Islander descent are disproportionately affected by the changes, because they are more likely than average to have convictions. About 60% of New Zealanders who have been deported from Australia since 2014 are "brown", as Joanne Cox of Oz

Kiwi puts it. Citizenship is reserved mostly for the skilled and relatively wealthy: only about 8.4% of New Zealanders who arrived in Australia in the decade after 2001 got passports. The rate for Maoris was below 3%.

Paul Hamer, a researcher at Victoria University of Wellington, in New Zealand's capital, suggests that Australia's souring mood has been fed by "dissatisfaction" at New Zealand's openness to Pacific migration. It threw open its doors to the region at a time when Australia still banned all but white immigrants (today it sets annual quotas for newcomers from the Pacific). People of Pacific Islander descent are 8% of New Zealand's population. Politicians in Canberra, the Australian capital, have complained for decades that such migrants exploit a "backdoor" to Australia.

Its conservative coalition government under Malcolm Turnbull is so concerned about border control that last year it rebuffed New Zealand's offer to resettle asylum-seekers from detention centres run for Australia's benefit in Nauru, a tiny Pacific island state, and Manus island, part of Papua New Guinea. Almost 1,600 "boat people" remain in the controversial camps, with no idea of when they might be released. Australia's opposition leader, Bill Shorten, says he would reconsider the New Zealand proposal if his Labor party wins the general election that must be held in the coming year. But not, he adds, before dealing with the issue of their onward movement. ■

Discrimination against women in Japan

Toxic test-doctoring

TOKYO

A medical-school scandal shows how the show is rigged against women

JAPAN has made a lot of noise in recent years about demolishing the traditional view that women should stay at home while men go out to work. So it was shocking when, on August 7th, Tokyo Medical University, a prestigious medical school, confessed to marking down the test scores of female applicants to keep the ratio of women in each class below 30%. This systematic manipulation, university officials admitted, had gone on since 2006.

Their defence was that women are more likely to drop out to marry and have children. To judge female applicants to medical school purely on their merits would leave Japan with a shortage of doctors, they said.

The admission has caused outrage. But it is probably just the tip of the iceberg, says Yumiko Murakami of the OECD. The gov- ▶▶

ernment says it will investigate every medical school in the country.

Doctoring has long been a male bastion. But it is not the only one. Japanese companies routinely favour male candidates when they recruit university students, says Ms Murakami. Discrimination is rife in banks and trading houses, where stamina and loyalty, qualities somehow associated with men, are prized, says Mari Miura, a political scientist at Sophia University. She recalls a job-recruiter breezily admitting to dropping English as a requirement for new entrants so as to weed out female candidates, who tended to have better linguistic confidence and skills.

Employers discriminate against women because they are likely to drop out; but they drop out partly because they are so poorly treated. Workplaces are seldom family-friendly. Hours are long and not nearly flexible enough for women who are pregnant or raising children. A former nurse at a Tokyo hospital says she quit after being told she would get no concessions for being pregnant. The head nurse said that given the uncertainty about the outcome of early pregnancy anyway, she should maintain her workload. A woman at a private kindergarten was reprimanded for getting pregnant out of turn—the director had laid down “shifts” for when workers could have children.

All this embarrasses a government that has promised to make women “shine”, its condescending catchphrase for female empowerment. The policy seems based on the need for more workers rather than on genuine concern for women. Shinzo Abe, the prime minister, says he wants to bring millions more women into the workforce to make up for a labour shortfall caused by its ageing and declining population. Japan’s working-age population is projected to shrink from 77m in 2015 to 48m by 2060.

Yet in relative terms the country seems to be going backwards. The World Economic Forum’s latest gender-gap index ranks Japan in 114th place out of 144 nations, a slide of 23 places from a decade ago. The proportion of Japanese doctors who are women is less than half the OECD average of 46%.

More female role models would help, says Ms Murakami. Yet in the field where Mr Abe has indisputable sway, that of politics, the record under his premiership is lamentable. Just a tenth of MPs in the lower house are women, putting Japan in 158th place out of 193 countries. Just two members of Mr Abe’s 20-strong cabinet are women, including Seiko Noda, in charge of women’s empowerment. Ms Noda, who makes little secret of her ambition to dethrone Mr Abe in a leadership contest next month, has just published a book called “Grab the Future”, her manifesto for pulling Japan into line with “global standards”. She has almost no chance of winning. ■

Polishing Narendra Modi

The image factory

DELHI

The Indian prime minister cares deeply about how he comes across

FEW national leaders are as careful of their image as Narendra Modi, India’s prime minister. He is said to change clothes as often as four times a day, keeping harmony with the occasion. His favoured style is to wear a mandarin-collared jerkin over a short-sleeved *kurta*, or long shirt. The jerkin was long known as a Nehru jacket, after Jawaharlal Nehru, India’s first prime minister, for whom it was a sartorial staple. But so iconic has it become on the current one that it is now marketed as the Modi jacket.

The boosting of Mr Modi’s image is not just down to dress sense. Since taking office in 2014 his government has spent some \$500m on advertising, much of which bears the beaming prime minister’s picture. The 21 state governments run by his party, the Bharatiya Janata Party, may have spent similar sums. Even private companies use Mr Modi’s image to promote their wares.

Pro-Modi fare swamps Indian social media. The prime minister has more than 40m followers on both Facebook and Twitter. More than 5m have downloaded a Modi smartphone app. Among other things, internet followers have been sent links to animated videos featuring Mr Modi as a yoga instructor. He appears as an androgynous, air-brushed uncle with flawless technique. He also promotes the videos on his monthly radio show, broadcast in 18 languages by All-India Radio. One in five households is said to tune in to “From the Heart”.

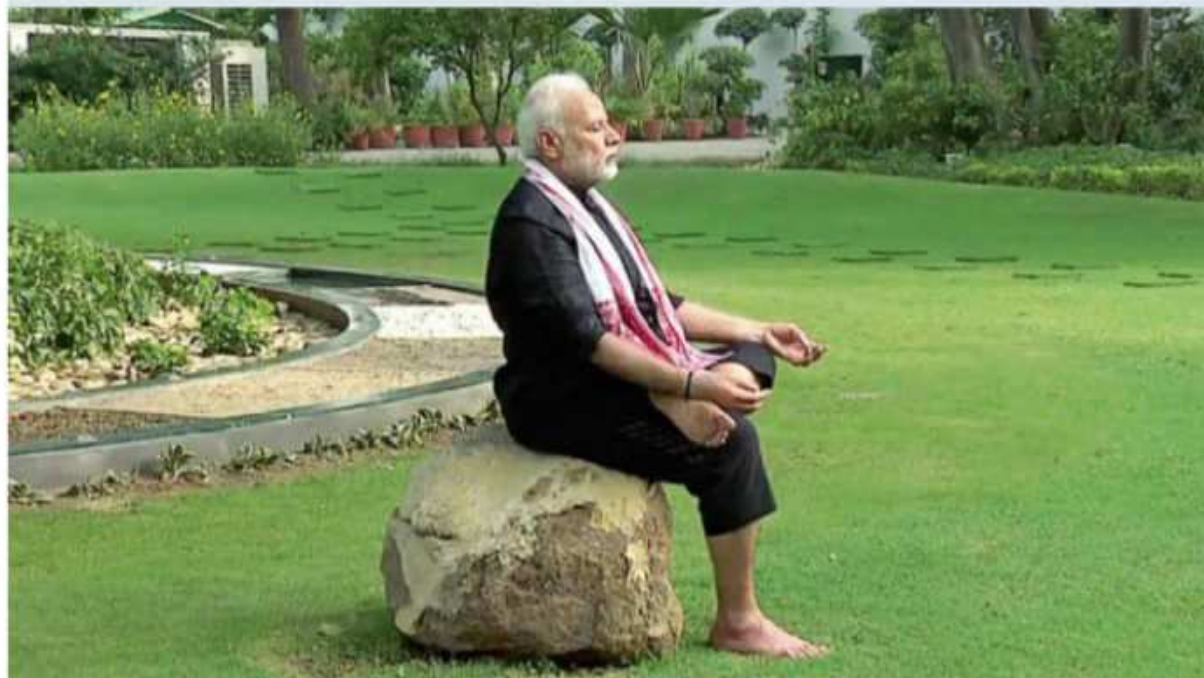
All this image-making is carefully controlled. The prime minister makes few unscripted appearances. He does not

bring journalists along when he travels. In a break with tradition, he has never held a press conference. At a recent, rare “interaction” with news editors from the southern state of Tamil Nadu, the dozen visitors were told the meeting was wholly off the record. Oh, and they were to avoid the topic of politics.

As it is, media analysts say, much of India’s press is too dependent on advertising from the government, or from friends of the ruling party, to be really critical. This is especially true of television. The recent fate of three senior staffers at ABP News, a Hindi channel, illustrates the perils.

Aware of criticism over economic distress suffered by India’s farmers, Mr Modi devoted the June edition of “From the Heart” to a “dialogue” with farmers. It featured a woman in the poor, remote state of Chhattisgarh who declared that her income had doubled since he came to power. An ABP News investigative programme subsequently tracked down the woman, who confessed on camera that she had been coached to make the claim.

Soon after, the channel’s satellite feed began to experience strange interference precisely during this programme’s airtime. A big advertiser, known for close ties to the ruling party, pulled out. The channel’s ratings fell. Told by the management to drop any reference to Mr Modi, two top staffers quit. A third was sent on extended leave. As soon as they were gone, claims a letter from the programme’s now-unemployed anchor, the technical problems vanished, and advertisers returned. Easy as changing clothes.



The man, the meme, the Indian dream

Also in this section

47 Demolishing Ai Weiwei's studio



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Chinese politics

On the Xi side, beside the sea

BEIDAIHE

How to read summer grumbles about China's swaggering leader

IN THESE populist times, a head of state whose summer break shuts down much of a busy beach resort might expect a few grumbles. It says much about today's China that—as Communist leaders arrived for an annual summer gathering in Beidaihe, north-east of Beijing—no peep of dissent could be heard on the town's packed public beach, in clear sight of the fenced-off leaders' district with its turreted villas, pine woods and empty, sandy shoreline. Several holiday-makers nervously insisted that they were “unsure” whether President Xi Jinping or any other bigwigs were in town.

Where the great helmsman swam

This was an implausible claim. Communist leaders have been coming to Beidaihe each summer to meet, swim and scheme since the 1950s, when Mao Zedong would alarm aides by swimming far into the soupy waters of the Bohai Sea. When a reporter visited on August 5th the town was full of tell-tale signs that the meeting was under way, starting with bare-tummied Chinese tourists in rubber rings dodging Red Flag limousines with number plates from the People's Liberation Army Central Military Commission. Offshore, a coast-guard corvette sat at anchor. China's high-tech security state has reached Beidaihe, too. In addition to civilian, paramilitary

and plain-clothes police patrolling main streets, all cars, drivers and passengers entering town had to register at a checkpoint bristling with number-plate readers and surveillance cameras. Even families entering a public park offering (distant) views of leaders' villas had to place identity cards on digital scanners and squint into facial-recognition cameras.

Amidst this odd jumble of cavorting children and scowling guards, the few Chinese bold enough to discuss the meeting expressed approval. National leaders deserve their rest, ventured a Beidaihe resident sitting with his wife on a bench. “They need their health so they can solve problems,” said the 80-year-old retired businessman, who gave his surname as Xu. Unprompted, Mr Xu's wife offered praise for Xi Jinping, calling him a good man who had brought China great stability. Populous China cannot afford foreign notions of freedom, volunteered Mr Xu, pointing to nearby hordes of swimmers. Without rules, who would save them if they got into trouble, he asked? As for America's combative president and his trade war: “I couldn't care less,” Mr Xu declared. “We're such a big country.”

Though hardly a scientific survey, such a snapshot of provincial public opinion—combining a widespread reluctance to talk

politics with outbursts of praise for Mr Xi—is a useful corrective. For in Beijing, a three-hour drive inland, this has been a febrile summer, filled with talk of brewing revolts against the president. Mr Xi is also Communist Party chairman and head of the Central Military Commission, and wields more power than any leader since Mao, filling party, military and security posts with allies and using a vast (and popular) anti-corruption drive to purge rivals.

No evidence that Mr Xi's position is in peril has come to light. Yet the capital's political classes, including Chinese academics who advise the government, business leaders, foreign diplomats and journalists, have spent weeks swapping rumours of bruising internal disputes about how to handle a trade war with America and generally protect a slowing economy. Some predict that Mr Xi and his inner circle will face unprecedented criticism at gatherings such as Beidaihe. Many rumours have a recurring theme: namely, that retired leaders such as Hu Jintao, his predecessor, Jiang Zemin and the former premier Zhu Rongji, are demanding an end to propaganda campaigns exalting Mr Xi as the “eternal core” of the party and “the country's helmsman”. Such sycophancy revolts a lot of older, educated Chinese, reminding them of the personality cult around Mao that so harmed China. Related rumours have such elder statesmen demanding a reversal of last year's decision to allow Mr Xi, in effect, to rule China for life, by abolishing the ten-year term limit that applied to his post as president. Finally, Beijing seethes with talk that retired and serving members of the government accuse Team Xi of ill-judged boasting about the country's rise, as when state media talked up a “Made In China” ►►

► 2025” plan to dominate such high-tech sectors as robotics and artificial intelligence. Xi critics blame such bragging for provoking a backlash across the West.

This summer’s wildest rumours, involving purported plots against and sackings of senior figures, probably reveal more about the longings of Xi critics than anything else. They also point to the downsides of opacity. Beidaihe’s very agenda is a secret. Comings and goings of leaders must be guessed at from sightings of motorcades and presidential trains, and terse state media reports of side events at the resort. In an age when America’s president tweets his innermost thoughts, China-watchers spent the summer counting fawning references to Mr Xi on the front page of *People’s Daily*, to see if they had become less numerous (they had not).

It is true that by playing the all-knowing father of the nation, dispensing guidance on everything from military strategy to the building of public lavatories, Mr Xi is vulnerable when things go wrong. It is genuinely damaging that China’s leaders look paralysed in the face of Mr Trump’s attacks over trade. But it is also the case that somebody cannot be beaten by nobody, and Mr Xi faces no obvious single challenger. What he does face is widespread disgruntlement among political and business elites. Mr Xi has not just accrued power for himself, in part by locking up a lot of corrupt officials. He has spent six years making explicit the primacy of the Communist Party, a state-above-the-state that operates a parallel chain of command at every level of government, from the smallest village to the largest ministry or state-owned enterprise. Communist Party secretaries and party committees are increasingly visible, as they sideline bureaucratic figureheads, from city mayors to provincial governors, right up to the premier, Li Keqiang, who runs the State Council, a body that oversees many government ministries and agencies. A recurring theme of Beijing rumours has Mr Li and the State Council apparatus ready to stand up to Mr Xi and his inner circle, and rebuke them for such errors as bungling relations with Mr Trump. That seems a stretch. At any rate Mr Li has been damaged by a scandal involving defective vaccines given to hundreds of thousands of children, dampening such talk.

Outsiders can be forgiven for being puzzled by government-party rivalry, not least because most government officials are party members. The contest can be partly understood as a clash between ideologues, who seek political control over the economy and all arms of state power, and technocrats who believe that the state must loosen its grip for China to thrive. A revealing joke in Beijing elite circles describes how Deng Xiaoping, father of the past 40 years of reform and economic opening, assembled two teams, one com-

prising the country’s best technocrats, and the other China’s most ingenious Marxist theoreticians. Deng asked the first team what policies the economy needed, and commanded the second team to define those policies as socialist. Reform-minded elites fear Mr Xi has reversed that process.

Amid the rumours some facts lurk. Team Xi did misjudge Mr Trump, wrongly assuming that this businessman-president, so charming in private with Mr Xi, could be bought off with the sort of tactical concessions that China has long used to placate angry foreigners. At a dinner for a foreign leader visiting Beijing this spring, sources relate, Mr Xi and aides confidently predicted that trade tensions with America would not escalate because both countries had too much to lose, while Mr Trump’s threats were called so much theatre. Other insiders say Team Xi was getting advice from the wrong Americans, notably business titans with long China careers, and putting too much faith in such Trump aides as Steven Mnuchin, the treasury secretary.

Petitions to the throne

Yet Xi critics can be correct without posing him any tangible threat. Chinese intellectuals have been transfixed by a coruscating, erudite essay by a Tsinghua University law professor, Xu Zhangrun. The essay, which draws on centuries-old traditions of scholars petitioning the mighty, condemns the Communist leader for his draconian security policies, for eliminating term limits on the presidency, and for reviving Maoist-style propaganda, political campaigns

and purges. Mr Xu charges China’s ruler with breaking the bargain underpinning the post-Mao era, that the people will tolerate one-party rule as long as they are left alone to seek prosperity and personal contentment. But its bravery is tinged with something close to snobbery. As masterfully translated by Geremie Barmé, an Australian sinologist, Mr Xu calls urban China “all very comfy and petit-bourgeois”. It is a telling line. Many Chinese reformists of the sort that foreigners meet loathe Mr Xi’s upending of post-Mao norms. But their grumbles are eerily similar to those that can be heard at Washington dinner parties, when academics or veterans of the Bush and Obama White Houses deplore Mr Trump and those voters taken in by him. Those Beltway critics don’t wield much clout.

If one charge sticks this summer, it may involve out-of-control propaganda. State media have stopped talking about Made in China 2025, and have carried editorials about the dangers of hubris, especially when China remains dependent on foreign technologies. A propaganda chief has reportedly lost his job. In Beidaihe a large portrait of Mr Xi can be seen inside a military compound, but no others are easily visible. A slogan at the town entrance reads, “Hold High the Great Banner of Xi Jinping New Era Socialism Thought with Chinese Characteristics”, but other slogans are more generic. One Western expert reflecting on this febrile summer wrote an essay asking whether we have reached peak Xi Jinping. Nobody knows. But China may have reached peak boasting. ■



Ai Weiwei’s studio is demolished

In Beijing workers obliterated the studio of Ai Weiwei, a Chinese artist and dissident. Mr Ai has been living in exile in Berlin since 2015, after years of skirmishes with authorities over his politically charged art and advocacy. The demolition came without warning, putting some artwork at risk, but was not necessarily a political act. The lease had expired, and the area is due for commercial development, including shopping malls. If the destruction of the studio were an installation, it might have been called “Progress”.

Also in this section

49 High-end summer camps



Summer holidays

School's out

BARRY

Most countries' schools have lengthy summer holidays. But experts say they have problematic, and unequal, effects

THE summer holidays have just begun, but it is a busy morning at Cadoxton Primary School, in Barry, an industrial town in Wales. It runs a summer programme for hard-up children, providing meals and activities over the holidays. As youngsters run laughing and screaming into the school cafeteria for breakfast, their parents saunter out, some visibly relieved. Just three days into the six-week school holidays one beleaguered mother says her nine-year-old daughter has already asked five times to go bowling. Without the school's help, she says, "it would be a long and expensive six weeks".

In the popular imagination, school summer holidays conjure up a picture of carefree youthful exploration. But many parents rely on the term-time services that schools give their offspring, such as supervision and meals. Come the holidays, they can suddenly find their schedules and budgets stretched. Researchers also say that the long break often sets back children's learning, and that children from poorer backgrounds are disproportionately affected.

The vast majority of the world's school calendars include summer holidays. Their length ranges from three weeks in South Korea to three months in America, Italy and Latvia. The holidays' 19th-century origins are hazy. It is popularly believed that they are a hangover from the West's agrari-

an past, when families needed their children's help in the fields during the summer; but many historians think the evidence for this is thin.

Experts talk of "summer learning loss", in which children return to school having forgotten some of what was taught the year before. "It is pretty clear that kids forget things over the summer," says Harris Cooper of Duke University in North Carolina. A study, using test-score data from students aged seven to 15 in an unnamed state in America's South in 2008-12, found that on average children lost more than a quarter of their school-year learning over the summer. Evidence from other countries is scarce. But studies have found that children regress over the summer even in Belgium, Britain, Canada, Germany and Malawi, all of which have much shorter summer breaks than America's.

Losing it

The impact appears to vary by socioeconomic class. Many poor children fall behind their wealthier peers over the holidays. "Summer is the most unequal time of the year," says Matthew Boulay of the National Summer Learning Association, an American NGO. Well-off parents can fill the gap left by school, keeping their children stimulated with summer camps, trips abroad or private tuition (see box on next page). Poorer families, obviously, find this

harder. Demand for subsidised "enrichment" activities often outstrips supply. Mr Boulay recalls meeting a mother in Oregon who queued for four hours to enroll for free swimming lessons for her son.

Holidays can be a financial strain, too. In countries where some children receive free school meals, summer means bigger grocery bills for hard-up families. Households where both parents work have to pay for extra child care, too. The Family and Childcare Trust, a charity, says that in Britain, where out-of-pocket child-care costs are the highest in the OECD, a club of mostly rich countries, parents will spend an average of £133 (\$172) per child, per week on child care this summer.

Natasha Cockram, who runs the summer programme at Cadoxton Primary School, worries that many children in Barry will spend most of the summer indoors, glued to their screens, because parents are both unable to afford child care or activities and also loth to let them roam unsupervised. "I get very bored at home," complains one six-year-old taking part in the summer programme. "There's nothing to do except sit on the sofa and watch TV." Older children, too, may have less to keep them busy. Data from the Pew Research Centre suggest that the number of 16- to 19-year-olds in America with paid summer jobs has fallen from over a half in 2000 to roughly a third last year—though this is partly because more are taking on unpaid internships.

A study in 2007 in Baltimore, Maryland, claimed that summer learning loss could account for up to two-thirds of the "achievement gap" between rich and poor children by the age of 14-15. More recent American research, however, argues that early-childhood development might play a bigger role. ►►

▶ Benjamin Piper, of RTI International, an American research institute, suspects that the scale of summer learning loss may be worse in the developing world, where it has largely gone unnoticed and unstudied. In rural areas in particular, reading material can be hard to come by and some children still spend their holidays helping their families in the fields. A study Mr Piper co-authored in 2017, on Malawian children taking part in an American-funded literacy programme, may be the only one on summer learning loss in sub-Saharan Africa. It found that the loss was almost as big as the gains the literacy programme generated during the school year. Mr Piper says that international donors, who spent \$1.4bn on basic education aid in Africa in 2015, risk “losing what they invested”.

Experts suggest three types of solutions to the problems posed by the long summer holidays: extending school years; spreading holidays to other times of the year; and more state-provided summer-holiday activities. South Korea is an extreme test-case for the first approach. It has the world’s longest school year and shortest summer break. For many students, even the short holidays offer little respite, since most are enrolled in private tuition, often in a *hagwon* (crammer). Three in ten parents surveyed last month said they planned to increase the number of *hagwon* classes their children will have to attend this summer.

Sure enough, South Korean students score brilliantly on comparative measures such as the OECD’s PISA test of maths, science and reading skills. But there is a cost. They also have a miserable time cramming for high-stakes exams, and higher incidence of mental-health problems than children in other rich countries.

Another objection to lengthening the school year is that it would strain public-education budgets. Teachers, who cherish their long breaks, would doubtless object unless they were paid more.

A second approach is to shorten the summer break but spread the holidays more evenly through the year. Janet Hayward, the head teacher at Cadoxton, wants the six-week British summer holiday reduced to four weeks, with half-term breaks lengthened. Professor Cooper says America’s three-month break may be outdated, and that a shorter one would be “more compatible with modern American life.”

But Mr Boulay doubts that campaigns to change the school calendar will have much effect. He says there is little public support anywhere for abolishing the summer break entirely. The holiday is deeply ingrained in tradition across the world, and (albeit limited) evidence on year-round schooling remains inconclusive about its effects on academic performance. Instead, Mr Boulay suggests that taxpayers or philanthropists should subsidise summer activities. He thinks children should

Summer camps

Mutually assured distraction

The ever more competitive world of the summer “enrichment” programme

IN A classroom at Imperial College London, students sit hunched over laptops, typing lines of code. Just nine years old, they are attending Firetech, a British technology summer camp for children. Courses include “Junior Augmented Reality” and “Creating for YouTube”. Such programmes are proliferating in many countries. They pander to two common demands from well-off parents: to entertain children over the long summer holidays and to give them a leg-up over their peers.

At most American summer camps children still commune with nature and sing around a campfire. But some camps cater to more niche interests, such as neuroscience, outer space or even atheism. Tom Rosenberg, chief executive of the American Camp Association, says a

growing number focus on skills in demand at modern workplaces. The proportion offering science, technology, engineering or maths programmes, for instance, rose from less than a quarter in 2014 to almost a third in 2017.

Students often have an eye on university. Alexandra Boyt and David Stephenson, who run a residential Latin camp in western England, say a lot of students come to prepare for interviews at Oxford and Cambridge. Princeton asks applicants how they spent their past two summers. Entry to the camps themselves can be competitive. Canada/USA Math-camp accepts just 15% of applicants.

In East Asia some parents use the summer to boost their children’s English skills. In a packed classroom at SNT Academy, a private language school in an affluent part of Seoul, the South Korean capital, a group of eight- and nine-year-olds practise debating (topic: should cosmetic surgery be banned?). Many wealthy Chinese parents go further, sending their children on study tours abroad. Ctrip, a Chinese travel agency, believes that 1m Chinese students will go on such trips this year, spending \$4.5bn.

The fanciest summer programmes can be expensive. Firetech charges £1,300 (\$1,700) for week-long residential courses; a week at Space Camp, in Huntsville, Alabama, can cost up to \$1,200. Mr Rosenberg says there is a camp for every budget. But as wealthier parents splash out on ever more specialised programmes, it is getting harder for the less well-to-do to keep up in the summer-camp arms race.



Back to earth in September

be encouraged to develop skills not emphasised in the school curriculum. He also wants to see summer courses used as a laboratory for innovative education techniques. “We need more learning but not necessarily more schooling.”

Summer learning need not be expensive. David Quinn of the University of Southern California says that even simple interventions like posting reading materials to homes, or sending parents text messages reminding them to make sure their children are reading, can reduce summer learning loss. Lenore Skenazy, founder of the Free-Range Kids movement (which campaigns for children to have more time unsupervised), says that letting children play on their own in parks teaches them important skills. She laments that parents wildly overestimate the risks their children

face outdoors (such as being kidnapped by strangers, which is vanishingly unlikely) and so prevent them from exploring.

Some governments are keen to help families that struggle with the summer. Britain’s Department for Education recently announced £2m of funding for programmes providing children with summer activities and meals. Hungary, too, expanded its food aid to children over the holidays, and American campaigners thwarted a government attempt to cut all federal funding for summer activities from this year’s budget. But elsewhere, even data on the effects of the summer holiday are scanty. Chloë Hughes, a youth-worker in Barry, contrasts fond memories of her own childhood summers with the predicament many families face at holiday-time today. “I think a lot of people dread it,” she says. ■



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Chinese investment in Silicon Valley

Cheques and balances

SAN FRANCISCO

China's ability to invest in American startups is looking more uncertain

BUYER'S remorse is often experienced in Silicon Valley by investors who plough money into risky startups only to see them fail. Some technology entrepreneurs are now suffering from seller's remorse. They are those whose young companies have grown big in part thanks to Chinese financial backing, but now feel under scrutiny because of an escalating fight between the two tech superpowers.

One entrepreneur who took money from Danhua Capital, a Chinese venture-capital firm based near Stanford University, for example, only recently learned that the firm was established with help and funding from China's government. "You're going in blind. If there are issues down the line you may not know who you're dealing with," he laments.

FIRRMA treatment

In coming days President Donald Trump is expected to sign into effect the Foreign Investment Risk Review Modernisation Act (FIRRMA), which establishes more vigilant reviews of foreign investments into American companies, including startups, on national-security grounds. While Mr Trump and China continue to spar over trade tariffs, FIRRMA reflects a fight over Chinese investment in American technology startups that is less visible but which nonetheless may have serious consequences for Silicon Valley.

Big deals with national-security impli-

cations have long been scrutinised. America's powerful Committee on Foreign Investment in the United States (CFIUS) has reviewed attempts by foreigners to take controlling stakes in domestic firms where their presence could weaken national security. But minority investments in startups went unremarked, though the firms may hold sensitive innovations in areas such as robotics, artificial intelligence (AI), biotechnology, 3D printing and more.

China is not mentioned in FIRRMA but is the main target. In recent years China's government and several firms have backed more than a dozen accelerators that cultivate startups and have opened "corporate innovation" centres in Silicon Valley. Baidu, the Chinese tech giant that is considered closest to the government, runs a centre focused on AI, and ZGC Capital, a group directly funded by Beijing's government, has opened an innovation outpost. Next year a Chinese firm will open Oceanwide Centre, the second-tallest building in San Francisco, a symbol of China's ambition to play a role in America's technology capital.

But China's main influence comes from investing directly in startups. Estimates are hard to obtain, because venture-capital investments are private and notoriously opaque. But according to an analysis by the Defence Innovation Unit Experimental (DIUX), a group founded by America's Department of Defence (DoD), in 2015 Chinese investors put \$3bn-4bn into early-

stage venture deals. Many prominent startups, including the ride-hailing firms Uber and Lyft, the messaging app Snap, virtual-reality firm Unity Technologies, cancer-testing firm Grail, financial-tech firm Sofi, augmented-reality firm Magic Leap and others, have taken Chinese money. From 2015-17, according to DIUX, China contributed 13% of total funds into American venture-capital-backed companies and ranked only second to Europe as the largest foreign source of capital for startups.

Some investors are simply seeking strong returns in a big market outside mainland China. Yet American politicians fret that distinguishing private Chinese capital from government funds is hard and that more is in play than profit.

Series C is for China

That is because China's sovereign, provincial and local governments, state-owned enterprises, firms and individual investors often form their own funds and pool their money in each other's investment vehicles. Many Chinese funds also have Western-sounding names, such as Westlake Ventures, which is owned by the city government of Hangzhou. SAIC Capital, backed by a Chinese state-owned car company, has its office on Sand Hill Road, the main thoroughfare for illustrious venture-capital firms.

Chinese money has come with extra perks for entrepreneurs. The investors usually agree to higher valuations to get access to deals. "We're outsiders. We don't have the years of connections we can offer to entrepreneurs, so we have to offer them something else," explains one. The Chinese have also been more willing to invest in more speculative technologies that are less likely to accrue big financial gains in the near term but require lots of capital. ►►

Until recently startup bosses treated Chinese funds like any other. Aside from a few cautionary tales, Chinese money was broadly welcomed. Now defence experts worry that investors are not seeking financial returns so much as insight into the plans of startups. A recent report by DIUX, entitled “China’s Technology Transfer Strategy”, analysed this; its findings catalysed the FIRRMA legislation. Investing several billion dollars is ultimately “a small price to pay to see a significant share of American startups’ innovation,” says Michael Brown, ex-boss of Symantec, a cyber-security firm, and co-author of the

DIUX report.

Putting money into startups in sensitive areas, some analysts believe, may also be a way to keep them out of the reach of America’s military. The DoD does not use technologies supplied by young companies that have foreign investors, for fear they could share or steal information or secretly offer a backdoor into computer systems. That theory may be unproven, but startups are just one domain of an escalating fight over technology. Mr Trump has made Chinese theft of American intellectual property a theme of his presidency. Industrial espionage is also getting more attention: in

July American authorities charged a former employee of Apple with trying to flee to China with information about its self-driving cars.

Passage of FIRRMA will give CFIUS new discretion to review property transactions, minority investments in companies that supply “critical technology” and firms that hold “sensitive personal” data on American consumers. But no review will be triggered by passive investments in companies that do not come with board seats or access to material, non-public information, so lots of investments in startups will not be scrutinised. There is also ambiguity ►►

Bartleby | Time to get in training

Companies must overcome skill shortages

AMERICAN companies spent \$91bn on staff training last year, almost a third as much again as they did in 2016. That equated to more than \$1,000 for every staff member being taught, according to a survey by *Training* magazine.

This shift is highly encouraging. In broad terms, provision of on-the-job training has been shrinking—in both America and Britain it has fallen by roughly half in the past two decades. Companies are often loth to provide it. A 2009 study from the OECD, a club of mostly rich countries, worried that “industry, left to its own devices, may not have incentives to provide sufficient training.” That is because workers may take advantage of their education to transfer their skills to a rival.

Training is even more important in a world of rapid technological change, where low-skilled tasks are increasingly being automated and artificial intelligence (AI) is transforming many services jobs. To have a chance of a long, high-paying career, workers need retraining.

At IBM, a computer firm, Diane Gheron, head of human resources, says that employee skills stay relevant for only three years. So training is “the lifeblood of any tech company”. IBM created an “AI academy” in which employees take courses from a curriculum, provided by Coursera, an online-learning platform founded by Andrew Ng, an AI pioneer, and Daphne Koller, a computer scientist, both of Stanford University. Roll up for such clickbait as: “Artificial intelligence process re-engineering case study”, and “Improving deep neural networks: Hyperparameter tuning, Regularisation and Optimisation”.

The courses are usually taught online and the staff often study in their own time. Those who complete a course can



qualify for a digital “badge” which bolsters their career profile on platforms such as LinkedIn. In 2016-18 more than 200,000 IBM staffers earned 650,000 badges and the average employee undertook 60 hours of training a year. IBM also has a programme that aims to retain workers who might be lured elsewhere.

In the past five years, IBM reckons, the proportion of its employees who have advanced digital skills has risen from 30% to 80%. (Digital skills include knowledge of AI, analytics, cloud computing, the Internet of Things and cyber-security.)

Patrick Hourigan has spent nearly 12 years at IBM, initially as a systems telecoms engineer and then as a software developer. Three years ago he moved into the security division and opted for a course in machine learning and AI. It took him around 50-60 hours over six weeks. “Technology is continuously moving,” he says. “Last year’s tech becomes a stepping stone to this year’s tech.”

IBM is far from alone in emphasising the importance of training. In 2013 AT&T, a telecoms giant, launched a training initiative called Workforce 2020. Part of the pro-

gramme was an online platform with a tool allowing employees to analyse hiring trends within the company and find out which skills are needed to qualify for the jobs. Together with Georgia Tech, a university, and Udacity, an online education group, AT&T offers a low-cost master’s degree in computer science.

As multinational tech companies, AT&T and IBM have all the capacity they need to offer substantial training programmes. Smaller firms may find the prospect daunting, but the existence of online courses means that it is not beyond their abilities. And they need to try. American businesses will have to fill an estimated 1.4m new computing and engineering jobs by 2020. Many companies worry about a shortage of talent in some critical areas. A recent survey by Enterprise Strategy Group, a market-intelligence firm, found that 51% of companies were short of cyber-security skills, up from 23% in 2014.

The problem may be even worse in Europe. A European Commission report last year found that 15% of workers lacked even basic digital skills, while 88% of companies had taken no action to deal with the problem. A survey by the Association of International Certified Professional Accountants found that a quarter of British workers had received no in-work training in the previous 12 months.

Yet managers know that technological change will require their workers to acquire more skills. The supply from higher education will be insufficient because of students’ subject choices, and immigration may not be able to solve the problem given the political mood. So firms will have to train workers themselves. The recent increase in spending is only a start.

▶ about what will be considered a “critical technology”. According to Rhodium Group, 15-25% of Chinese venture deals will be reviewable under the new regime, but if a broad definition is adopted, that could rise to 75% of deals. It is likely that America will continue to identify and add new sensitive technologies to its list over time, says Christian Davis, a lawyer with Akin Gump.

Chinese investors are thinking up coping mechanisms. According to one executive who makes tech investments on behalf of a large Chinese company, they could simply try to hire a team instead of investing in their startup, or ask them to move to Canada before an investment is made. Other investors are planning to take their money elsewhere (though other countries are tightening up their screening mechanisms, too). “If the environment is not friendly for us to invest in America, then it costs us nothing to pull out and do more in Europe and Israel,” says the boss of a Chinese venture-capital firm mentioned in the DRUX report. “Tense” is how one participant summed up the mood at a gathering in June near Silicon Valley, called the US-China AI Tech Summit. Several high-profile Chinese tech bosses and government officials cancelled.

Given the past interest of Chinese investors in frontier technologies, startups working on hardware, biotechnology, quantum computing and other areas that require “patient” capital could suffer. That is probably what worries Valley-watchers the most about the recent shift. If America makes life difficult for Chinese investors, the government should provide some sort of improved tax treatment or otherwise encourage more American investors to step in, argues Matt Ocko, co-founder of DCVC, a venture-capital firm. “Startups already deal with so much uncertainty,” adds Roy Bahat of Bloomberg Beta, an investor. “Anything that reduces their options or increases their risk makes them more likely to die.” ■

Tesla and the markets

Beckoning the barbarians

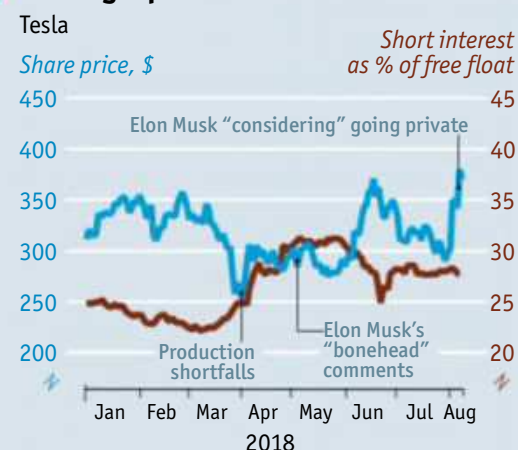
Elon Musk wants to take Tesla private

“I WISH we could be private with Tesla.” So said an exasperated and exhausted Elon Musk to *Rolling Stone* last November. Tesla’s rise has been remarkable. In 15 years it has taken on established car-makers to become the world’s leading manufacturer of electric cars. But the journey has been bumpy. Of late Mr Musk says his company has been in “production hell” trying to increase output of the Model 3, a whizzy mass-market saloon. While on its quest to change the world, Tesla has frequently missed its production targets and has never made an annual profit. Feeling the heat, Mr Musk earlier this year lashed out at share analysts for “bonehead” questions, and has derided the army of short sellers targeting it.

Yet it still came as a shock when, on August 7th, Mr Musk revealed his intention to take Tesla private in an extraordinary tweet. He claimed that he had lined up enough money to buy out the firm at \$420 per share, roughly a fifth above the share price at the time. The chaos surrounding the tweet led to a brief suspension of trading of its shares on the NASDAQ stock exchange. Then Tesla released a memo confirming Mr Musk’s plan. He added details in subsequent tweets suggesting this was more than a lark. By the end of the day the firm’s shares were up sharply, dealing a costly blow to the shorts (see chart).

Mr Musk’s wish to depart from the public market is understandable, though of late he seems to have made some peace with its constraints. At a quarterly-earnings call on August 1st he said output of the Model 3 was rising and forecast profits

The big squeeze



soon. He even apologised to analysts. But private backers with deep pockets would let him expand at his own pace.

Can he achieve the unlikely yet again? One potential snag might be his cavalier use of tweets to drop his latest bombshell. American regulators have ruled that firms are permitted to disclose financial information using social media, but they must not mislead investors. They will be watching to see if his claim of having “funding secured” is borne out.

Another concern is the sheer size of the proposed deal. The largest buyout to date, the takeover by Kohlberg Kravis Roberts of RJR Nabisco in 1989, was worth \$64bn in today’s money. Yet Mr Musk may not need the \$70bn-80bn (including nearly \$10bn of debt) at which Tesla would be valued at \$420 per share. Some reckon he would require less than \$40bn in financing if his own stake (about a fifth of the firm) and those of other big public investors were rolled into the new entity.

Mr Musk has given no details of where the cash will come from, but the source might well be foreign. Tencent, a Chinese internet giant, already holds a big stake in Tesla. Japan’s SoftBank, which has thrown vast sums at technology firms through its Vision Fund, might be keen. But the most likely investor is Saudi Arabia. Reports surfaced this week that the oil kingdom’s sovereign-wealth fund had bought shares in Tesla worth around \$2bn.

Even if Mr Musk can rally the money-men, going private may not prove a smooth ride. There may be political opposition to large foreign investments in an American car firm. Many punters who have held onto Tesla shares through the dark days made clear on Twitter that they did not want to sell. Mr Musk promised this week to create a special investment vehicle that would allow them and employees to “remain shareholders”, but experts say such an unorthodox and complex arrangement may hit legal snags. Then even Tesla’s accommodating board (which has already discussed this proposal) might be forced to reject it. Public or private, Tesla will keep Mr Musk running at full tilt. ■



Coolfizzin'

PepsiCo said this week that Indra Nooyi will step down in October after 12 years as chief executive. During her tenure revenues rose by 80% to over \$63bn, though rival Coca Cola delivered bigger gains in market capitalisation. Ms Nooyi presciently invested in healthier offerings, offsetting weakness in sales of sugary products. She fended off activist investors who demanded a break-up. She was one of the first Asian Americans to run an American giant, helping to shatter a “bamboo ceiling”. When she took the top job, roughly 2% of *Fortune* 500 firms were run by women, a figure that has crept up to less than 5% today. Ramon Laguarta, an inside man at PepsiCo, will succeed her.

Chinese tech firms

Enigma variations

Alibaba makes a welcome move to rejig its legal structure. Others may follow

IF YOU want to study how the legal title to assets worth many billions of dollars changes hands in China, then peer carefully at page 116 of Alibaba's new annual report. The text is dense and you may have to put a cold towel on your head and read it several times. The gist is that the Chinese internet giant is reforming its legal structure, which uses a fragile and ingenious device known as a variable interest entity (VIE). Alibaba's attempt to make its VIES safer is to be welcomed and will be watched closely by China's richest entrepreneurs, many of whom use them, too.

VIES are ubiquitous, especially among the country's internet firms, which have a total market capitalisation of over \$1trn. The structure dates back to the early 2000s, when Chinese technology companies wanted to tap global capital markets in New York and Hong Kong and to set up international holding companies domiciled outside of mainland China. Yet their sensitive internet assets, such as licences, may not be owned by foreign entities, according to Chinese law.

To get around this, tech firms opted to avoid owning these mainland assets outright, and instead to bundle them into legal entities called VIES, in turn owned by individuals in China (usually the bosses of the firms and their associates). The VIES and these individuals sign contracts with the international holding company, handing over to it control of the VIE as well as its profits. This approach remains popular. For example, it is being used by Xiaomi, a tech firm which did a blockbuster initial public offering in Hong Kong this year.

There are three problems with VIES. First, key-man risk. If the people with nominal title die, divorce or disappear, it is not certain that their heirs and successors can be bound to follow the same contracts. Second, it is not clear if the structure is even legal. China's courts have set few reliable precedents on VIES and the official position is one of toleration rather than approval. Third, VIES allow China's leading tech firms to be listed abroad, preventing mainlanders from easily owning their shares and participating in their success.

Alibaba's proposed change is aimed at tackling the first problem, key-man risk. At the moment four of its five VIES are nominally owned by Jack Ma, the firm's leader, and Simon Xie, a co-founder and former employee. After the restructuring, the two men will no longer be the dominant coun-

Energy

Too much in the tank

Why investors in oil firms should worry about climate change

THE oil industry has much to fear from the Paris climate deal of 2015, which aims to limit temperature rises to less than 2°C above the pre-industrial era. To curb carbon emissions, demand for fossil fuels will have to drop in coming decades. That is likely to push down oil prices and the value of investments that firms have made based upon them.

A report published on August 6th by Sarasin & Partners, an asset manager in London, suggests that oil firms are assuming that decarbonisation will be limited and are thus overstating their assets. Sarasin notes that eight European oil giants all used long-term oil price assumptions of \$70-80 a barrel, rising by 2% a year with inflation to \$127-145 by 2050, to price their assets. But that does not appear to assume any drop in demand. The International Energy Agency predicts a price of just \$60 by 2060; Oil Change International, an activist think-

tank, estimates one as low as \$35 (see chart). Oil firms could face a sticky mess of forced writedowns.

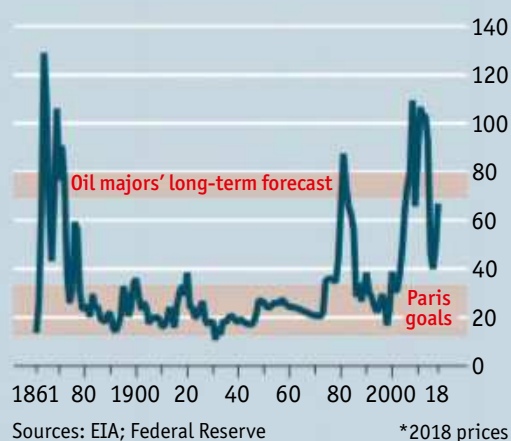
The picture is complicated by the fact that in Europe oil firms can choose their own long-term prices, whereas in America regulators compel firms based there to use the average price over the past year, which is nearing \$70. Executives in both places have their reasons for thinking that prices will be higher than the worst forecasts, particularly as the world is set to miss the Paris goals.

Setting those aside, prices are likely to be lower anyway in the next few decades, says Adam Pilarski of Avitas, a consultancy. There will be ups and downs to do with geopolitics. Prices are up from \$26 in 2016 to over \$70 mainly because of Venezuela's meltdown and better co-operation between Saudi Arabia and Russia. But the economics on the supply side are clear: plentiful reserves and the falling cost of technology for extracting oil will soften long-term prices.

Natasha Landell-Mills of Sarasin says oil firms should be more transparent about the risk this poses to assets and profits. Other fund managers, such as Aviva Investors, echo that view. In Europe oil bosses are preparing for lower prices, though they are still unwilling to say as much. Shell and its British rival BP are aiming to make new projects break even at just \$40. Investors are more worried about the American firms. Rising prices have lured them to start splurging on pricier projects. America may be leaving the Paris deal, but escaping its impact on global oil prices is harder.

Dipsticks?

Crude oil, \$ per barrel*



terparties. Instead the VIES will be owned by two layers of holding companies, which will sign contracts with Alibaba.

These holding companies will ultimately be nominally owned by a broader group of Alibaba's senior Chinese staff. The idea is that if anyone gets run over by a bus, then the scheme will not be disrupted, because nominal control is spread among a wider group of people. The new approach is far from perfect but it is an improvement. If all goes to plan it will be completed by 2019. Other tech firms may feel pressure to follow.

The other two problems with VIES remain, however. All firms still carry warnings in their annual reports that the legality of VIES is uncertain. And mainlanders cannot own shares easily. When Xiaomi floated in Hong Kong in June its plan was that

they could buy stock in two ways. They could purchase depositary receipts (which give the rights to the underlying share) that would be listed in Shanghai, or they could buy shares in Hong Kong through "stock connect", a programme allowing a limited volume of trading between the mainland and Hong Kong.

Unfortunately the listing of depositary receipts fell through, for reasons that remain unclear. Then mainland regulators decided that firms with dual share classes, including Xiaomi, would not be eligible for stock connect (the Chinese authorities and Hong Kong's exchange are holding negotiations to try to resolve this). China talks a good game about financial reform but its fiddly rules and opaque decision-making are a source of risk and ambiguity—even for its most successful companies. ■

Danone and the rise of B Corporations

Choosing plan B

PARIS

The boss of Danone, a food-and-drink giant, rethinks the purpose of the company

THE food industry is going nowhere. Pretty pictures on food packets mislead. Big companies have disconnected people from their sustenance. Consumers, especially millennials, are sceptics about industrial-scale food production. Even sellers of healthy products, such as mineral water, spread harm—just look at billions of their plastic bottles that choke the oceans.

Such views are commonly heard among food activists, radical bloggers or anti-capitalists. Yet these come from Emmanuel Faber, who runs Danone, a large French food company. Mr Faber (pictured) frequently sounds like a doomsayer about his own industry—and about capitalism more broadly. “A revolution” and the end of globalisation are nigh, he says.

Danone is well-placed to spot such changes. With its headquarters in Paris, the company sells to over 130 countries and made nearly €25bn (\$28bn) in revenues last year. Mostly it sells dairy goods such as Activia yogurt, mineral water (in plastic bottles) such as Evian or Volvic, and baby food. Mr Faber sees change driven mostly by the new habits of consumers in rich countries. “People are walking out of brands that they’ve been consuming for decades,” he says. Millennials in particular do not think their food system works and are shopping locally, favouring smaller producers and buying organic, plant-based or GM-free products.

Danone’s answer is to rethink the motivating idea of the company. That means rejecting the Anglo-Saxon idea that a firm exists primarily to maximise the welfare of its owners, the shareholders. Danone is pursuing what Mr Faber sees as a more meaningful goal. The “purpose of this firm is not to create shareholder value”, he says. Instead it is to get healthy food to as many mouths as possible, benefiting everyone from suppliers to consumers to owners.

In part, this serves as savvy marketing; Mr Faber, a wiry rock-climber, is living the brand. The approach is also consistent with Danone’s history going back well over a century. In a speech in Marseille in 1972 a former boss, Antoine Riboud, launched the idea of the company having a “dual project”, meaning it should pursue both economic and social benefits. That speech, influenced by his Socialist leanings and anti-capitalist protests and social upheaval from 1968 onwards, is still dutifully cited by senior management.

The firm does put its money where its

mouth is. It has sold subsidiaries that produced biscuits, chocolate and beer, for example. Evian, its high-end mineral water brand, which accounts for roughly 3% of revenues, is trying to become carbon neutral. Danone is working on a way to make recycled plastic, which is often grey, appealing to drink from. Danone also runs large-scale, non-profit “social businesses”, such as one in co-operation with Muhammad Yunus, a Nobel laureate, which provides high-quality and nutritious yogurt cheaply to Bangladeshi children. Mr Faber previously led this part of the company.

The latest effort is to win certification as a “B Corporation”, a label meant to reflect a firm’s ethical, social, environmental practices. Smaller outfits, such as Patagonia, a clothing firm, or Ben and Jerry’s ice-cream (now part of Unilever) were early B Corps. Some 2,500 have been certified in the past decade or so. Athleta, an “athleisure” firm owned by the Gap clothing chain, became a B Corp in March. Firms scrutinise each other, along with independent monitors.

So far around 30% of Danone’s various subsidiaries are thus certified. The goal is to do them all within a few years, at least by 2030. In April Danone North America, encompassing WhiteWave, an organic-food firm that Danone bought in 2017 for \$12.5bn, became the world’s biggest B Corp. The idea is that the label will help to win back trust from consumers.

**Between a rock and a better place**

Relatively few people, at least outside America, have heard of B Corps, although Walmart, Danone’s biggest single customer, is an enthusiastic promoter and pushes B-Corp goods in its stores. In America B Corps are associated with (but different from) Benefit Corporations, a legal status for firms that lets them seek goals other than maximising shareholder welfare.

B Corps are certified by an independent movement called B Lab, founded by Jay Coen Gilbert. Like Mr Faber, he talks of a pressing need to rethink the philosophy of the company, saying “we need to correct an error in the source code of capitalism: shareholder primacy”. B Corps, he says, promote better governance and better serve the interests of workers, suppliers and wider society, in addition to investors. He notes that Larry Fink, chairman of BlackRock, the world’s biggest asset manager, said much the same in a letter to companies in January.

Prophet with profits

Does Danone’s radical approach hold water? Other consumer giants, such as Unilever, emphasise that giant firms should lead on environmental, social and governance topics. But Danone’s virtue-signaling goes further, analysts agree. All the same, Martin Deboo, of Jefferies International, a bank, notes that Danone has a mixed reputation among European investors. The firm had been trying to up its returns, but its high-priced purchase of WhiteWave, which has low returns, was disappointing, he says. Danone’s returns of around 8% on invested capital are relatively low compared to its peers. After rumours in the summer of 2017 that an activist investor was circling, the firm’s share price leapt, suggesting buyers hoped new management could lift its performance.

Over time, Danone’s approach may become more appealing to mainstream investors. Long-term asset managers, banks, and other financial partners say they feel social and environmental obligations getting stronger. Yngve Slyngstad, the head of Norway’s pension fund, says he is obliged to consider how investment decisions today might affect future generations and ask how firms might influence society, say, over climate change. The fund owns nearly \$1bn of Danone stock (1.7% of the total).

Danone points to other financial benefits of its approach. It trumpets, for example, a deal announced in February with 12 creditors. Cecile Cabanis, its chief financial officer, describes a syndicated credit facility of €2bn that is tied to Danone’s B-Corp status plus other environmental, social and governance goals. As more of Danone is certified, she says, the margin payable on the credit will gradually fall. Mr Faber does concede that ultimately, he himself will be judged by Danone’s share price. The proof of the pudding will be in the eating. ■

Schumpeter | How to save it

Singapore is a model for how to reform some of the world's most flawed investment vehicles



IN MOST countries the priority with the public finances is how to stop debt spiralling. But some places have the opposite difficulty: how to manage piles of savings. China and Saudi Arabia are examples. Globally, governments have over \$20trn stashed in state-run investment vehicles. That sum is three times the size of BlackRock, the world's biggest asset manager. Managing it is fraught and becoming more so owing to protectionism. Governments with spare funds should study Singapore, which, as in many aspects of administration, has its head screwed on.

State investment funds come in several flavours. There are currency reserve funds, which are often managed solely by central banks. Then there is an array of entities that are lumped together under the "sovereign-wealth fund" label, which typically manage pension assets, oil revenues, some currency reserves, or own stakes in companies that governments view as strategic.

Central bank reserve kitties have existed for centuries, and sovereign-wealth funds date back to the 1950s, but both became prominent in 2004-08. High oil prices, trade surpluses and capital inflows meant that Asian and Arab countries were knee-deep in foreign earnings, which they reinvested in safe treasury bonds and also in riskier assets such as stakes in foreign firms. The spending spree peaked in 2008. By that point Western governments had become uneasy about the funds' power.

There are still problems. Often the funds' objectives are muddled. Some have their capital depleted by profligate politicians; others cannot decide whether to invest at home as well as abroad. It is a constant struggle to avoid cronyism and to persuade other countries that they are not a tool of foreign policy.

Judged by their size, state funds have trodden water. Since 2015 emerging countries have burned up reserves as capital flows reversed and commodity prices fell. Adding up all global currency reserves and sovereign-wealth funds, their weight in the financial system has stayed flat over the past six years, at 12% of the market value of all shares and bonds. Governance is patchy. A Malaysian state fund, 1MBD, has been at the centre of a corruption scandal. The \$250bn Saudi Public Investment Fund is making huge, wild, bets on Silicon Valley and pursuing the pet projects of Muhammad bin Salman, the crown prince.

China has pots of money but has made little progress on re-

form. A body called SASAC owns stakes in firms at home, but fails to insulate them from political influence. Another fund, CIC, styles itself as an independent global asset manager, but holds stakes in local banks, talks up foreign policy aims such as the Belt and Road Initiative, and wants approval to play in the sagging domestic stockmarket. Even Norway's \$1trn fund has seen political rows over its approach to private investment and energy firms.

Relative to the pack, Singapore is doing well. Its funds have assets of about \$770bn—the exact figure is secret. They have made an annual return (in dollar terms) of about 6% over the past two decades, slightly more than an indexed portfolio with two-thirds of its assets in shares and one-third in bonds. Their income pays for a fifth of government spending. The funds are free of scandal and enjoy a solid reputation both in China and the West.

There is a clear division of labour. The central bank runs \$290bn of liquid reserves. A national piggy-bank manager called GIC runs an estimated \$250bn, long-term, diversified foreign portfolio. Then a holding company, Temasek, has the rest, keeping a quarter of its portfolio in stakes in Singaporean firms. It also makes punchy bets abroad.

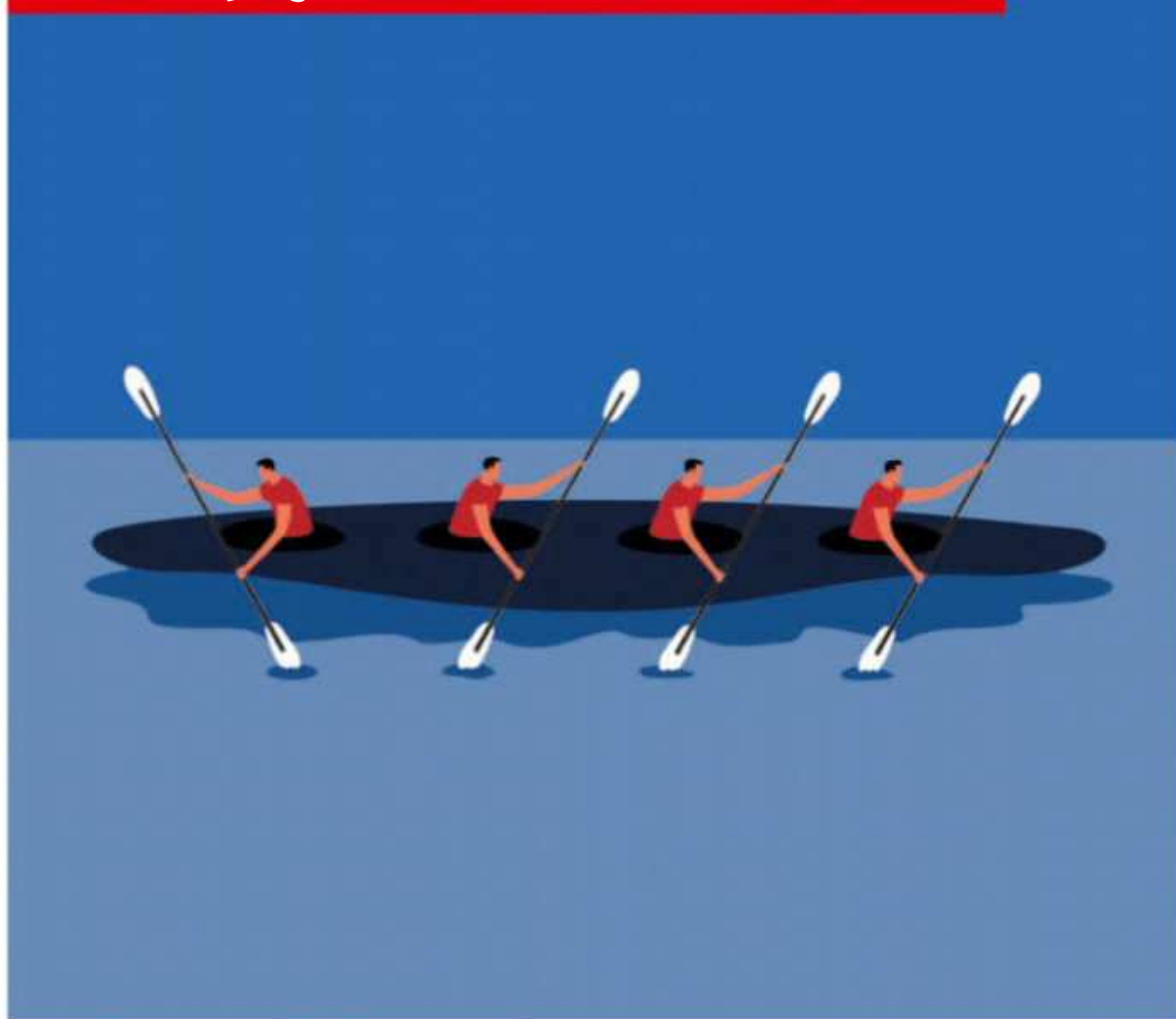
On the funds' boards sit a combination of officials, politicians and captains of industry; Singapore's elite can sometimes seem too tightly knit. Yet overall governance is good. The city-state's leaders view reserves-management as a national mission. Advisory boards and staff include lots of outsiders: 37% of the total employees of Temasek and GIC are foreign, versus under 10% at CIC. There is little evidence of Temasek meddling in the local champions in which it invests, such as DBS, a bank. In 2014 it did raise its stake in Olam, a struggling local commodities firm, but made a modest profit on the deal. In 2015 it unsentimentally sold control of Neptune Orient, a shipping line, to a French firm.

The fiscal framework is admirably clear. The reserves have special protection under the constitution. Under rules put in place in 2008, the government can spend up to half of the long-term expected annual real return of its net reserves each year. In practice this equates to about 1.6% of the funds' capital value. The aim is to ensure that the pool of reserves and their income remain constant as a share of GDP over time, which Singapore has achieved; its capital is about 220% of GDP, the same as in 1997, *The Economist* estimates. While the official calculations are confidential, a rough estimate is that annual nominal returns would need to drop below 5.5% before the state eats into its inheritance.

Keeping on the Strait and narrow

Few countries have Singapore's graft-free civil service and polity, which make technocratic excellence easier. And there are blemishes. The funds are now so big that there is more risk of pointless duplication. In June, for example, both GIC and Temasek invested in Ant Financial, a Chinese fintech firm. Mistakes happen: in 2007-08 both funds made some badly timed bets on Western banks. As Singapore's population ages, state health-care costs will rise by almost one percentage point of GDP over the next decade. There will be pressure to raid the piggy bank, or for the funds to juice up their returns by taking bigger risks.

Nonetheless, for many countries, including China and Saudi Arabia, Singapore's model for state investment funds is the one to emulate. Markets are frothy, so rash investment decisions can be very expensive. And protectionism means that countries lacking a credible, apolitical investment process may suffer a worse fate: having their state funds locked out of foreign markets. ■



Alexis de Tocqueville

The French exception

The gloomiest of the great liberals worried that democracy might not be compatible with liberty

HE IS the most unusual member of the liberal pantheon. Liberalism has usually been at its most vigorous among the Anglo-American middle classes. By contrast, Alexis de Tocqueville was a proud member of the French aristocracy. Liberalism tends to be marinated in optimism to such an extent that it sometimes shades into naivety. Tocqueville believed that liberal optimism needs to be served with a side-order of pessimism. Far from being automatic, progress depends on wise government and sensible policy.

He also ranks among the greats. He wrote classic studies of two engines of the emerging liberal order: “Democracy in America” (1835-40) and “The Old Regime and the French Revolution” (1856). He also helped shape French liberalism, both as a political activist and as a thinker. He was a leading participant in the “Great Debate” of the 1820s between liberals and ultra-Royalists about the future direction of France. In 1849 he served briefly as foreign minister (he died a decade later). He broadened the liberal tradition by subjecting the bland pieties of the Anglo-American middle class to a certain aristocratic disdain; and he deepened it by pointing to the

growing dangers of bureaucratic centralisation. Better than any other liberal, Tocqueville understood the importance of ensuring that the collective business of society is done as much as possible by the people themselves, through voluntary effort, rather than by the government.

Tocqueville’s liberalism was driven by two forces. The first was his fierce commitment to the sanctity of the individual. The purpose of politics was to protect people’s rights (particularly the right to free discussion) and to give them scope to develop their abilities to the full. The second was his unshakable belief that the future lay with “democracy”. By that he meant more

than just parliamentary democracy with its principle of elections and wide suffrage. He meant a society based on equality.

The old regime was predicated on the belief that society was divided into fixed classes. Some people are born to rule and others to serve. Rulers like Tocqueville’s family in Normandy inherited responsibilities as well as privileges. They were morally bound to look after “their people” and serve “their country”. Democratic society was based on the idea that all people were born equal. They came into the world as individuals rather than as aristocrats or peasants. Their greatest responsibility was to make the most of their abilities.

Terror and the state

Many members of Tocqueville’s class thought that democratisation was both an accident and a mistake—an accident because cleverer management of the old regime could have prevented the revolution in 1789, and a mistake because democracy destroyed everything they held most dear. Tocqueville thought that was nonsense—and pitied his fellow blue-bloods who wasted their lives in a doomed attempt to restore aristocratic privilege.

The great question at the heart of Tocqueville’s thought is the relationship between liberty and democracy. Tocqueville was certain that it was impossible to have liberty without democracy, but he worried that it was possible to have democracy without liberty. For example, democracy might transfer power from the old aristocracy to an all-powerful central state, thereby reducing individuals to helpless, isolated atoms. Or it might make a mockery of free discussion by manipulating everybody into bowing down before conventional wisdom.

Sir Larry Siedentop, an Oxford academic, points out that Tocqueville’s contribution was to identify a structural flaw in democratic societies. Liberals are so preoccupied by the “contract” between the individual on the one hand and the state on the other that they don’t make enough room for intermediate associations which acted as schools of local politics and buffers between the individual and the state. And, he was the first serious thinker to warn that liberalism could destroy itself. Tocqueville worried that states might use the principle of equality to accumulate power and ride roughshod over local traditions and local communities. Such centralisation might have all sorts of malign consequences. It might reduce the variety of institutions by obliging them to follow a central script. It might reduce individuals to a position of defencelessness before the mighty state, either by forcing them to obey the state’s edicts or making them dependent on the state’s largesse. And it might kill off traditions of self-government. ►►

In this series

- 1 John Stuart Mill
- 2 Alexis de Tocqueville
- 3 John Maynard Keynes
- 4 Schumpeter, Popper and Hayek
- 5 Berlin, Rawls and Nozick
- 6 Rousseau, Marx and Nietzsche

► Thus one liberal principle—equal treatment—might end up destroying three rival principles: self-government, pluralism and freedom from coercion.

Tocqueville feared his own country might fall into the grip of just such an illiberal democracy, as it had in the Terror, under Maximilien Robespierre in 1793. The French revolutionaries had been so blinded by their commitment to liberty, equality and fraternity that they crushed dissenters and slaughtered aristocrats, including many members of Tocqueville's family. His parents were spared, but his father's hair turned white at 24 and his mother was reduced to a nervous wreck.

He was worried about more than just the bloodshed, which proved to be a passing frenzy. The power of the state also posed a more subtle threat. The monarchy had nurtured an over-mighty state, as French kings sucked power from aristocrats towards the central government. The revolution completed the job, abolishing local autonomy along with aristocratic power and reducing individual citizens to equal servitude beneath the "immense tutelary power" of the state.

By contrast, the United States represented democracy at its finest. Tocqueville's ostensible reason for crossing the Atlantic, in 1831, was to study the American penal system, then seen as one of the most enlightened in the world. His real wish was to understand how America had combined democracy with liberty so successfully. He was impressed by the New England townships, with their robust local governments, but he was equally taken by the raw egalitarianism of the frontier.

Why did the children of the American revolution achieve what the children of the French revolution could not? The most obvious factor was the dispersal of power. The government in Washington was disciplined by checks and balances. Power was exercised at the lowest possible level—not just the states but also cities, townships and voluntary organisations that flourished in America even as they declined in France. The second factor was what he called "manners". Like most French liberals, Tocqueville was an Anglophile. He thought that America had inherited many of Britain's best traditions, such as common law and a ruling class that was committed to running local institutions.

Of liberty and religion

America also had the invaluable advantage of freedom of religion. Tocqueville believed that a liberal society depended ultimately on Christian morality. Alone among the world's religions, Christianity preached the equality of man and the infinite worth of the individual. But the *ancien régime* had robbed Christianity of its true spirit by turning it into an adjunct of the state. America's decision to make religion a

matter of free conscience created a vital alliance between the "spirit of religion" and the "spirit of liberty". America was a society that "goes along by itself", as Tocqueville put it, not just because it dispersed power but because it produced self-confident, energetic citizens, capable of organising themselves rather than looking to the government to solve their problems.

Sleeping on a volcano

He was not blind to the faults of American democracy. He puzzled over the fact that the world's most liberal society practised slavery, though, like most liberals, he comforted himself with the thought that it was sure to wither. He worried about the cult of the common man. Americans were so appalled by the idea that one person's opinion might be better than another's that they embraced dolts and persecuted gifted heretics. He worried that individualism



might shade into egotism. Shorn of bonds with wider society, Americans risked being confined within the solitude of their own hearts. The combination of egalitarianism and individualism might do for Americans what centralisation had done for France—dissolve their defences against governmental power and reduce them to sheep, content to be fed and watered by benevolent bureaucrats.

Tocqueville exercised a powerful influence on those who shared his fears. In his "Autobiography" John Stuart Mill thanked Tocqueville for sharpening his insight that government by the majority might hinder idiosyncratic intellectuals from influencing the debate. In 1867 Robert Lowe, a leading Liberal politician, argued for mass education on the Tocquevillian grounds that "we must educate our masters". Other Liberal politicians argued against extending the franchise on the grounds that liberty could not survive a surfeit of democracy. In the 1950s and 1960s American intellectuals seized on Tocqueville's insight that mass

society might weaken liberty by narrowing society's choices.

More recently intellectuals have worried about the rapid growth of the federal government, inaugurated by Lyndon Johnson's Great Society programme. Transferring power from local to the federal government; empowering unaccountable bureaucrats to pursue abstract goods such as "equality of representation" (even if it means riding roughshod over local institutions); and undermining the vitality of civil society tends, they fear, to destroy the building blocks of Tocqueville's America. A recent conference, organised by the Tocqueville Society and held in the family's Normandy manor house, dwelt on the various ways in which democracy is under assault from within, by speech codes, and from without, by the rise of authoritarian populism, under the general heading of "demo-pessimism".

It is worth adding that the threat to liberty today does not stem just from big government. It also comes from big companies, particularly tech firms that trade in information, and from the nexus between the two. Gargantuan tech companies enjoy market shares unknown since the Gilded Age. They are intertwined with the government through lobbying and the revolving door that has government officials working for them when they leave office. By providing so much information "free" they are throttling media outfits that invest in gathering the news that informs citizens. By using algorithms based on previous preferences they provide people with information that suits their prejudices—right-wing rage for the right and left-wing rage for the left.

Today's great rising power is the very opposite of the United States, the great rising power of Tocqueville's time. China is an example not of democracy allied to liberty but of centralisation allied to authoritarianism. Its state and its pliant tech firms can control the flow of information to an extent never dreamed of. Increasingly, China embodies everything that Tocqueville warned against: power centralised in the hands of the state; citizens reduced to atoms; a collective willingness to sacrifice liberty for a comfortable life.

Before the revolution in France in 1848, Tocqueville warned that the continent was "sleeping on a volcano...A wind of revolution blows, the storm is on the horizon." Today democracy in America has taken a dangerous turn. Populists are advancing in Europe, Asia and Latin America. Authoritarians are consolidating power. The most pessimistic of great liberal thinkers may not have been pessimistic enough. ■

open future

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Trade war (1)

Is China losing it?

SHANGHAI

Weak Chinese markets give America the edge, at least in confidence

WHEN Donald Trump tweeted on August 5th that tariffs were working “big time”, American media sprang into action to test the claim (see next article). In China, editors were more circumspect. No major Chinese-language newspaper reported his tweets. One of his claims—that China’s stockmarket has fallen 27% in the past four months—was an exaggeration. But why would any self-respecting propagandist in Beijing dwell on that? Chinese stocks have indeed fallen sharply (see chart), which officials do not wish to emphasise.

And this is just one of a series of awkward facts for China as its trade war with America deepens. The yuan is down 8% against the dollar since April, and near its weakest in more than a year. A shrinking trade surplus produced a current-account deficit in the first half of 2018, China’s first such gap in at least two decades. More broadly, China’s growth is slowing at a time when America’s economy is expanding at its fastest pace since 2014. No wonder Mr Trump feels that he is on the right path, and that Chinese investors are jittery.

Making matters worse for China is a whiplash effect. Until recently officials and executives believed their own declarations of technological prowess. Privately, advisers were confident that Mr Trump could be placated with promises to ramp up imports from America. Now both views look

wanting. An agreement for China to buy more American natural gas and soyabeans collapsed in June. Chinese officials are keenly aware of vulnerabilities; had America maintained its sanctions on sales of semiconductors to ZTE, the Chinese telecoms giant might well have gone out of business. Those with a conspiratorial mindset see things in a darker light. “The Americans don’t want a deal. They want to screw us,” says a fund manager.

The asymmetry in the trade war is another uncomfortable fact. Since America buys far more from China than vice versa, America has more scope to impose tariffs. This imbalance, long discussed in theoretic-

cal terms, is close to becoming a hard reality. Mr Trump has instructed his trade team to consider 25% tariffs on \$200bn of Chinese imports as early as September, taking the total affected by its tariffs to about \$250bn, with room for twice that amount. China’s threatened retaliation, announced on August 3rd, will be tariffs on \$60bn of American imports. This would take the total under its tariffs to \$110bn, with little room for more.

China has other weapons at its disposal. It can disrupt the lucrative Chinese operations of American businesses, from Apple to Starbucks. But that would have downsides. Declaring bogus justifications (health violations, say) would reinforce foreign criticism of government meddling in China’s economy. And the nature of such interference, unlike tariffs, is that it will not be announced in advance, meaning it can take longer to register the impact.

The timing of the trade war is most inconvenient for China. Over the past two years the government has waged a campaign to rein in debt levels. Finally this has started to bite, with credit growth slowing sharply. Officials could opt to abandon their tightening stance in order to counteract the trade turmoil. But that might erase the gains from the deleveraging. This explains their restraint so far. At a meeting of the Politburo on July 31st, China’s leaders noted that it was a priority to support growth amid the “clear change” in the external environment, but also pledged to press on with their efforts to control debt. Investors who had hoped for more easing were disappointed.

So there is cause for concern about China’s growth outlook. But markets may be unduly pessimistic. One conclusion from the past few weeks is that policymakers

Cracked China

Stockmarket indices, \$ terms
 January 2nd 2018=100



Source: Wind Info

► now accept that the trade war is real, and are starting to cushion the economy. The boost to exports from the falling yuan, down about 6% on a trade-weighted basis since mid-June, should be “roughly proportionate” to the blow from the first \$50bn of American tariffs and some of the next \$200bn, says Andrew Tilton, the chief Asia economist at Goldman Sachs. At the margins, he adds, China is shifting to a more active fiscal policy. Officials have made it easier for cities to get funding for infrastructure projects. One government adviser says there is discussion of a bigger stimulus, likely to be focused on promoting consumption rather than investment.

The economic backdrop to the trade war could also change over the next year. As China tiptoes towards easing, its credit growth should pick up. Meanwhile, America may be near the top of its growth cycle, with gains from last year's tax cut set to dissipate. Louis Kuijs of Oxford Economics, a research firm, says the divergence in their stockmarkets might reflect overconfidence in America and an evaporation of confidence in China. “Both reactions seem exaggerated,” he says. With no resolution to the trade war in sight, there will be time enough to test this proposition. ■

Trade war (2)

Metal clashing

WASHINGTON, DC

Tariffs are not quite the success the American president thinks

DONALD TRUMP credits the tariffs he has imposed on steel and aluminium imports, and on a range of Chinese products, with almost magical potency. Either they will force other countries to drop trade barriers and crown him as deal-maker-in-chief, or they will pay down government debt while saving favoured industries. “Plants are opening all over the US, Steelworkers are working again, and big dollars are flowing into our Treasury,” he tweeted on August 4th. How do those claims stack up?

Tariffs are taxes on imports and so will bring some cash to treasury coffers. But comparatively little. In 2017 America's government borrowed around 3.5% of GDP. Had the new tariffs been in place, and under the (extreme) assumption that the same goods had been imported despite costing more, they would have raised only 0.08% of GDP. Even including all Chinese imports, the number would have risen to just 0.7% of GDP. And that is before considering tariffs' depressive effects on demand for imports and on economic growth.

There is more substance to the claim



Flame wars

that they have brought American furnaces and smelters roaring back to life. The volume of steel imports from the countries hit by tariffs and quotas was 36% lower in June than a year previously. The corresponding fall for aluminium imports was 27% (see chart). As prices have risen, so has production. Steelmakers are using 78% of their capacity, not far off the administration's goal of 80%. And some idled aluminium capacity is being brought back online.

But production data are volatile, and recent changes are relatively small when taken in historical context. And some of the recent activity would have happened without new trade barriers. Metal prices have been pulled higher by a strong economy. Higher aluminium prices are in part the result of more expensive alumina, one of the main inputs. American sanctions on Rusal, a massive Russian supplier of alumina, and cuts to alumina production in Brazil because of environmental problems, have left aluminium makers feeling insecure about supply.

Those higher prices are a burden for businesses that use metals, which account for a far higher share of American jobs. They are doubly disadvantaged as inputs become pricier and overseas competitors can undercut them. Some have requested exemptions from the tariffs, only to be blocked by official objections from some of the biggest American steelmakers, which claim that they can supply the supposedly scarce products. But tariffs were not intended to help metal consumers, after all.

More strikingly, even some of those whom protectionism was supposed to help are grumbling. The loudest complaints are about the inclusion of Canada in the list of countries thrashed by trade barriers, which has damaged a highly integrated economic area. Even the United Steel Workers Union, a strong supporter of

the tariffs overall, criticised Canada's inclusion. (It represents workers on both sides of the border.)

In the first quarter of 2018, 52% of American steel exports went to Canada. Those are now being hit with retaliatory tariffs. On August 6th Alcoa, a large aluminium producer, requested a tariff exemption of its own so that it could import aluminium from its Canadian subsidiary to America. It had previously reported that tariffs had raised its costs by around \$15m in the second quarter of 2018 (less than the extra profits from higher aluminium prices).

Some producers within both industries do not smelt metal from scratch but recycle or process it instead. It is in their interests for their inputs to be cheap. So far aluminium processors (which account for 97% of employment in the industry) seem to have passed the extra costs on to their buyers. But in the long run higher prices could encourage a switch to different materials. Aluminium competes with steel for use in cars, and with glass in drinks containers.

The big question is whether any revival can be sustained. In the short term, tariffs are more likely to bring older, relatively inefficient steel plants back online than to stimulate new long-term investments, for the simple reason that the president could withdraw the tariffs at any moment. The newest aluminium smelter in America is around 40 years old. If primary aluminium production revives sustainably, it will be because American producers can access cheap, reliable energy.

And tariffs do nothing to address the underlying complaint of American steel and aluminium producers: that state support gives Chinese producers an unfair advantage that has them pumping out production as job losses mount elsewhere. Populist policies can often deliver short-term results. The question for Mr Trump is whether his are worth the cost, and how long the benefits can last. ■

Smelter skelter

United States, January 2017=100



Sources: S&P Global Platts; Census Bureau; USITC

Fund management

Fama and fortune

GREENWICH, CONNECTICUT

Factor-based investing spreads from stocks to bonds

COMPARED with equity investing, bond investing can seem stuck in the dark ages. As hedge funds and asset managers use whizzy algorithms to trade shares automatically, bond-fund managers still often call traders by phone. So when new investing strategies do arise, they make an even bigger splash. “Factor” investing is the latest example.

This is the idea, credited to economists Eugene Fama and Kenneth French, that predictable, persistent factors explain long-term asset returns. Their 1992 model for equities used the size of firms and what became known as “value” (the tendency for cheap assets to outperform pricey ones). Later models added factors such as “momentum” (the tendency of prices to keep moving in the same direction). Factor-based analysis has squeezed active managers (since it explains much of their returns) and helped drive the rise of passive investing. Investors can access factors in equities, often called “smart beta”, through cheap index-tracking funds or exchange-traded funds (ETFs) from the likes of BlackRock and State Street Global Advisors.

Messrs Fama and French considered factors in bond returns as early as 1993, though not the same ones as for equities (they reckoned, for instance, that for bonds value had “no obvious meaning”). Federal requirements since 2002 to disclose transaction prices and volumes have enabled closer analyses. A recent paper by researchers at AQR Capital Management, a \$226bn hedge fund founded by a student of Mr Fama that specialises in factor investing for equities, looks at four factors for global sovereign bonds and American corporate ones: carry (high-yielding bonds beat low-yielding ones), quality (safer assets have better risk-adjusted returns), value and momentum.

These were not only strongly correlated with bond returns over the past two decades, but also largely uncorrelated with factors in equity markets, credit risk for bonds and macroeconomic variables such as inflation. Since active bond-fund managers tend to make excess returns mainly by buying riskier bonds, and a traditional bond index-tracking fund means exposure to the firms and countries that issue the most debt, factors provide a third, distinctive investment option.

AQR’s first dedicated fixed-income offering, a fund of American high-yield (that is, junk-rated) bonds, was launched in

mid-2016. It outperformed the benchmark index by 2.1 percentage points in its first year, and 2.6 points in its second. Tony Gould of AQR credits not only the factor modelling for its success. He says that the higher cost of trading bonds compared with equities needs to be built into the bond-picking process. The firm has since started two more bond funds. Other such firms that used to focus on equities are looking into bonds, too. Man Numeric, for instance, a quant fund in Boston, wants to apply its expertise in company-level analysis to high-yield bonds.

Among the mass-market offerings are BlackRock’s first smart-beta bond fund, launched in 2015. It switched from active management to index-tracking in 2018, and the firm now has several index-tracking bond ETFs that use factors (mostly quality and value). Fidelity Investments launched two bond factor ETFs in March, and Invesco launched eight on July 25th.

Factor investing for bonds is still so new that many investors have not even heard of it. But opportunities to use it are growing because of recent European regulations mandating price and volume disclosure for bonds. Just five years ago a fund manager would have struggled to find enough data for non-American bonds, says Collin Crounover of State Street Global Advisors. Now the firm is applying quality- and value-factor analysis to corporate bonds in euros and sterling. The way index-trackers and smart-beta approaches laid waste to stock-pickers suggests that managers of active bond funds should be quaking. ■

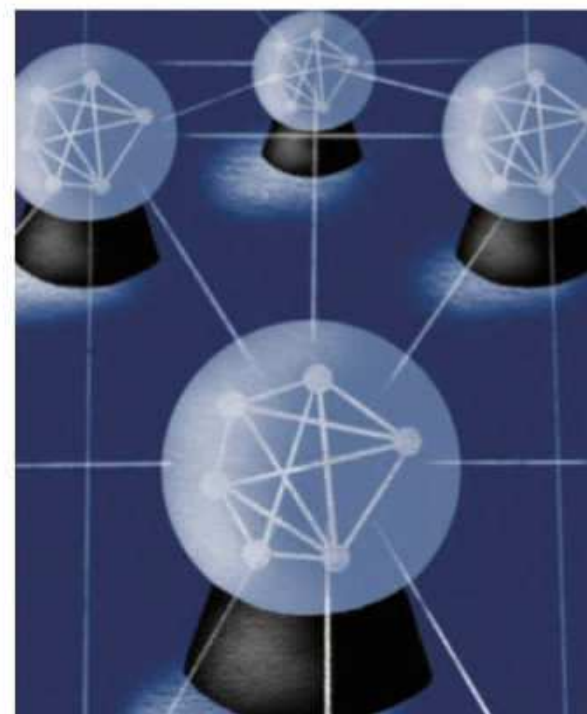
Prediction markets

Collective oracle

Crowdsourcing and crypto-currencies could breathe new life into an old idea

WILL a Democrat win America’s next presidential election? Will Tesla file for bankruptcy by the end of 2019? Punters now have a new option for such bets: Augur, an online prediction market. Whether it takes off will be a gauge of the viability not only of such markets but of decentralised applications built on blockchains, the databases underlying crypto-currencies.

Augur is not the first online service that allows people to buy and sell predictions like shares. Since 1988 it has been possible to bet on American elections via Iowa Electronic Markets (IEM), run by the University of Iowa. PredictIt, a site based in New Zealand but with a largely American audience, and Betfair Exchange, a British service, also let users bet on political events. Some firms run such markets internally, for



instance to predict demand for a product. All have the same goal: to gain insights into the future by giving those who hold useful information an incentive to reveal it.

But legal barriers have long hampered such attempts at crowdsourcing. In America many prediction markets are considered a form of illegal gambling, or akin to trading in commodities futures that requires a licence. Regulators have allowed such services to operate if they are structured as non-profit “research” initiatives and limit bet sizes and numbers of traders, as IEM and PredictIt do. But because of the legal risk, private investors are reluctant to finance prediction markets. Intrade, an Irish site, shut in 2013, partly because the Commodity Futures Trading Commission forced it to stop serving Americans.

Augur’s decentralised design should allow it to sidestep regulatory difficulties. In 2015 the Forecast Foundation, a non-profit group of developers, raised \$5.5m by issuing a crypto-currency, REP, in a form of crowdfunding now known as an initial coin offering. Rather than living on a few servers, as Intrade did, Augur is a “protocol”, or set of technical rules, based on the Ethereum blockchain, that allows punters to set up their own prediction market. This will make betting cheaper, says Joseph Krug, one of Augur’s developers, and shift legal responsibility to bettors.

Yet decentralisation creates a new problem: who will decide the outcome of a bet? For Intrade, the firm itself declared the winner. For Augur, any holder of REP can become a “reporter”, in charge of checking facts on the ground for a fee. So that they are kept honest, reporters must stake some REP, which is forfeit if other reporters overturn a decision. Reporters can close a market they deem illegal or unethical. If they err, whether towards caution or tolerance, they can lose their REP deposit.

Markets have been created on the deaths of famous people. That has raised fears about the rise of “assassination mar- ▶▶

►kets” that incite people to commit murder for financial gain (none has been shut down yet since there have been no trades). A more immediate problem for Augur is getting people to use it. Predictions.Global, a website that tracks activity on Augur, lists nearly 1,000 markets with almost \$1.5m at stake. Yet most are bets on the value of crypto-currencies. Worse, according to DappRadar, another website, the number of daily users has fallen from a peak of 265 in early July, straight after Augur’s launch, to 37 on August 8th.

Mr Krug says he is unconcerned. Augur

is clunky and slow for users: downloading its software and the Ethereum blockchain can take hours. Now that they know the system works, he and his developers plan to make it more user-friendly. But success is not in their hands alone: Ethereum has run out of capacity and needs major upgrades.

Even if Augur is not a wild success, it is a “worthwhile exploration” of the viability of decentralised services, says Kevin Werbach, the author of “The Blockchain and the New Architecture of Trust”, a forthcoming book. Learning needs a lot of doing in the complex world of blockchains. ■

50%, and for London 59%, with rent consuming half of gross pay. In just four of our cities are prices at or under fair value: Tokyo, Milan, New York and Singapore.

But our index suggests that property prices may be near a turning point. The average rate of house-price inflation across our 22 cities has slowed, from 6.2% annually 12 months ago to 4.7% now. In six cities prices have fallen from recent peaks.

The three reasons why cities have experienced a property boom—and why it may now be ending—are demand, supply and the cost of money. In recent years people and jobs have flocked to the biggest cities from other parts of their own countries and elsewhere. More than a third of London’s population was born abroad. For Toronto, the share is more than half. The population of our 22 cities rose, on average, by 12% over the past decade. A further boost to demand has come from foreign investors. Auckland, London, Sydney and Vancouver have attracted large inflows, particularly from China.

But according to the Economist Intelligence Unit (EIU), our sister company, the growth in globalised cities’ population will soon start to slow. A few might shrink. London lost 100,000 people to the rest of Britain in the 12 months to June 2017, and the EIU expects its population to fall over the coming decade.

One reason people may stop flocking to cities is that they have been priced out. ►►

Property prices

Housing correction

Our new cities house-price index suggests that the market is slowing

FROM Auckland to Amsterdam, Sydney to San Francisco, house prices in the best locations have gone through the roof. *The Economist’s* new house-price index covers 22 of the world’s most vibrant cities (see table). They are home to 163m people, with an economic output equal to Germany and Japan combined. The average price of a home in these cities rose by 34% in real terms over the past five years. In seven cities it rose by more than half.

Some of this is a rebound from the global financial crisis, which started with a housing bust. Prices in our cities fell by an average of 22% in real terms, peak to trough—in Dublin by 62%, and in San Francisco by 42%. But they have since risen by an average of 56%, in real terms, from their lowest points. In 14 cities prices are above their pre-crisis peak—by an average of 45%.

Before the crisis, city and national prices broadly rose in tandem. They fell together, too, after the bust. But when they started to rise again, they did so on average twice as fast in our cities as nationally. Moreover, according to the IMF house-price inflation in capital cities is increasingly synchronised.

To gauge whether house prices reflect fundamentals or froth, *The Economist* has compared them with rents and median household incomes. If prices rise faster in the long run than the revenue a property could generate or the earnings that service mortgages, they may be unsustainable. Or, at least, incomes or rents will eventually have to rise.

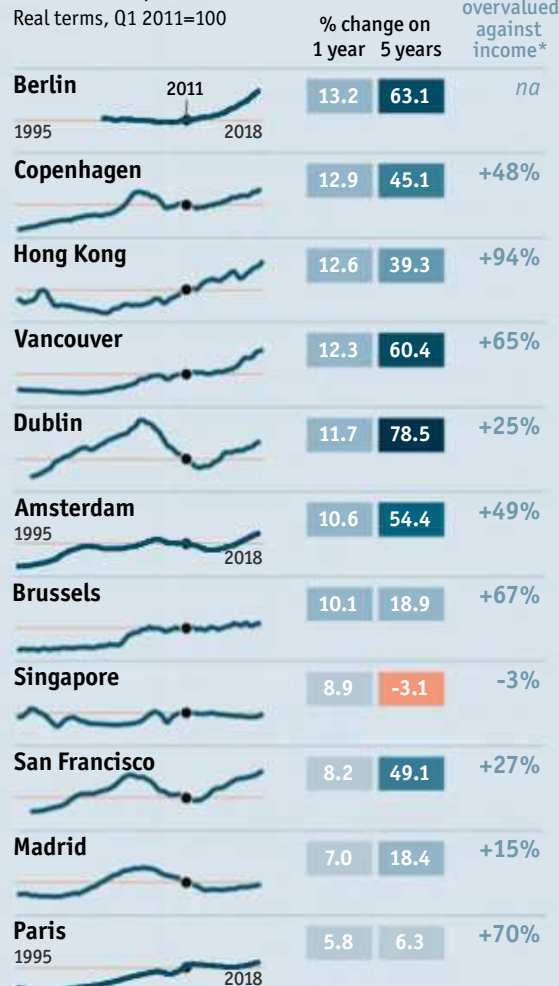
Taking the average ratio over the past 20 years (or more if data exist) as “fair value”, national house prices in Australia, Canada and New Zealand have been more than 20% above fair value compared with income and 30% above fair value compared

with rents for the past three years. They have now hit 40% above fair value for both metrics. Data for rents at the level of cities are lacking. But compared with long-run median incomes, prices appear even bubblier at city level than nationally.

Prices in Vancouver are 65% overvalued by the same metric. The figures for Amsterdam, Copenhagen and Sydney are around

Prime numbers

Cities house-price index, latest
Real terms, Q1 2011=100



Sources: Bank for International Settlements; Economist Intelligence Unit; Nomisma; Thomson Reuters; vdpResearch; Zillow; national statistics; *The Economist*



*Relative to long-run median disposable household income

► And cities are becoming less welcoming to foreign capital, too. Vancouver has made it harder for foreigners to buy property. Australia has increased property-transaction taxes for non-residents. New Zealand is considering a ban on foreigners buying property. Tighter capital controls in China add to the squeeze.

Second, planning restrictions, local campaigns against new developments and developers sitting on land they think will rise in value have conspired to make new housing scarce. In the five years to 2016 London's population grew almost twice as fast as its housing stock. Comparing new-

builds with population growth (an imperfect measure, since household composition may change, but the best available) suggests a shortfall across ten of our cities of 28,000 homes a year in the past decade.

But the calculus here, too, may be changing. Prices seem to have climbed high enough to encourage new supply. London added 40,000 homes last year—the most for decades. New-builds have added almost a fifth to Sydney's stock of apartments in the past three years.

Finally, loose monetary policy since the financial crisis has made mortgages extremely cheap. This has “super-charged”

prices, says Liam Bailey of Knight Frank Global Research, a property consultancy. Cheap money has also lowered bond yields, pushing investors into other assets, including property. As central banks tighten, servicing a property loan will become more expensive and fewer investors will seek alternatives to fixed-income assets.

London, vulnerable because of Brexit, may be a bellwether. Agents say developers have started to offer discounts of as much as 10% to close sales. As demand weakens, supply strengthens and mortgage rates rise, the bull run in global cities' housing may be drawing to an end. ■

Buttonwood | Triple-B movie

Why the largest category of American corporate bonds is a notch above junk

BY HIS own account Christopher Hitchens, an author who died in 2011, was a poor student. He left Oxford with a third-class degree. This was not for want of ability. Hitchens would become a prolific essayist and fearsome debater. Rather, it was a choice. His tutors warned him about neglecting his studies. But he preferred to divide his time between his social life, political protests, books (other than the prescribed ones) and lively debates with other thinkers.

As Hitchens's counterexample demonstrates, it is possible to regret the opportunities missed while striving for top grades. It is a lesson that many of America's biggest companies have grasped. At one time, the sort of company that could tap the bond market for capital would be given an A-grade as a matter of course. These days the typical corporate-bond issuer has a credit-rating of BBB, only a notch above a junk rating (see chart).

That might seem to imply that business has become less efficient or lucrative. Yet profits have never been higher as a share of GDP. In fact, for much of corporate America a BBB rating is the consequence of a financial strategy. Many established firms have chosen to load up on debt to buy back their own shares in order to boost shareholder returns or, more recently, to pay for mergers.

To understand why, it helps to start with a bit of textbook finance that says share buy-backs are pointless. According to a theory proposed in 1958 by Franco Modigliani and Merton Miller, a firm's capital structure—its mix of equity and debt finance—has no effect on its value. Debt has first call on profits; shareholders get what is left over. Debt is thus less risky for investors and a cheaper form of finance for companies. The more debt a firm has, the more volatile are its equity

returns. Investors dislike volatility. So a firm's share price should in principle decline as it takes on more debt, leaving its overall financial value (the sum of its debt and equity) unchanged.

Grade deflation

The theory simplifies reality to illustrate a truth—a firm's worth is ultimately its cash flows. In the real world, there are benefits to using debt. A big one is that interest costs are tax-deductible. This tax shield is in effect a subsidy to debt finance. Debt also has costs. A high interest burden can lead to missed opportunities or a damaging bankruptcy. Each firm has to make a trade-off between the costs and benefits. Capital-goods firms may plump for low debts and a solid credit rating to show they will be around to honour their warranties. Telecom companies, which have more stable earnings, are more likely to gear up.

As the corporate-bond market has expanded, new categories of firms have been able to take advantage of cheap debt finance. The taboo on issuing lower-grade debt became weaker in the 1980s after “corporate raiders” used junk bonds to finance

leveraged buy-outs of listed companies. Since the financial crisis corporate-debt issuance has accelerated, says Adam Richmond, an analyst at Morgan Stanley. Low yields on government bonds as a result of quantitative easing have drawn investors into riskier sorts of paper. Companies have seized on this demand as a further subsidy to debt. The number of firms issuing bonds has increased by two-thirds in the past decade, according to PIMCO, a fund manager.

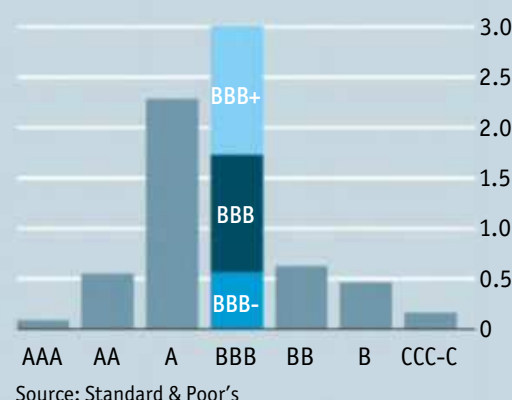
No doubt some firms will discover they have issued too much. It is of some comfort that the ratio of corporate debt to GDP is barely higher than its previous cyclical peaks, in 2000 and 2008. Bond finance has in part displaced bank finance. But if banks are less exposed, investors are more so. For now, strong GDP growth is a balm. A recent report by S&P Global, a credit-rating agency, plays down the risk of a rash of downgrades to junk. Firms might simply choose to buy fewer of their shares back to preserve their BBB rating.

Even so, a recession will come sooner or later. The profits of leveraged firms will be damaged, which will in turn hurt confidence. Downgrades and defaults will follow, as they always do. The process will be more drawn-out than usual if, as seems likely, there proves to be a shortage of buyers for a fresh supply of junk.

For now the market is stable. But corporate credit is an asset class to be wary of in a maturing economic cycle. In good times there seems little prospect that buyers might dry up. But they will. The best time to buy corporate bonds is early in an economic recovery, when downgrades and defaults are still under way. There are likely to be more bargains than usual next time. If companies no longer need to strive for an A-grade, all the more reason for investors to do their homework.

BBB King

Face value of US corporate-bond debt
By rating category, June 30th 2018, \$trn



Free exchange | Mangonomics

Why is macroeconomics so hard to teach?



LAST month Nick Rowe had a bad dream. It was five minutes before the first class of the autumn term at Carleton University in Ottawa, where he has long taught macroeconomics. But he could not find the classroom. Then he woke up and remembered with relief that he had just retired.

Learning macro is a source of anxiety for many students. Teaching it can give their professors the jitters, too. The subject is notoriously difficult to explain well. During his 37 years at Carleton Mr Rowe remained, by his own admission, “fairly low down the totem pole” as a researcher. But he became a thunderbird at conveying macroeconomic intuition. In the past decade this served him well in his second intellectual career, contributing to Worthwhile Canadian Initiative, an economics blog. Many a controversy has benefited from one of his ingenious analogies or numerical parables, usually involving some kind of fruit.

Professors may find themselves ill-prepared for the macro classroom. To become academics they had to answer erudite questions posed by more senior members of the discipline. To become good teachers of introductory macro, they have to give clear answers to muddled students. That requires an intuitive feel for the subject. It is not enough to crank through the equations.

Indeed, Mr Rowe attributes part of his success as a teacher to his shortcomings as a mathematician. He quotes Joan Robinson, another clear expositor of macroeconomics: “I never learned maths, so I had to think.” Because the answers did not leap out at him from the equations, he had to dwell on the economic behaviour underneath the algebra.

Macroeconomics is difficult to teach partly because its theorists (classical, Keynesian, monetarist, New Classical and New Keynesian, among others) disagree about so much. It is difficult also because the textbooks disagree about so little. To reach the widest possible audience, most cover similar material: a miscellany of models that are not always consistent with each other or even with themselves. The result is that many professors must teach things they do not believe.

Professors can also sometimes forget that macroeconomics is full of *faux amis*: words that mean something different in everyday speech. “Saving” is an example. In ordinary life, it means the opposite of spending. In macroeconomics it means the opposite

of consumption (or, more precisely, not buying new consumer goods with income earned from production). In macro, someone who spends a fortune on a house is saving even if they have emptied their bank account to do so. The term can be so confusing that Mr Rowe thinks it should be banished from the discipline.

More difficulties, Mr Rowe suggests, follow from the fact that macroeconomics is a bit “weird”. For him, the discipline’s fundamental question is the one broached by Jean-Baptiste Say 200 years ago: does supply create its own demand? The answer, which is often no, is odd. Why do people go to the trouble of producing and marketing stuff (thereby adding to supply) if not to obtain equally valuable goods with the proceeds (thereby adding to demand)? Because students take recessions for granted, they may not realise how peculiar they are. Professors may recognise the strangeness. But they sometimes struggle or neglect to explain it. Mr Rowe did not encounter Say’s law explicitly until well into graduate school.

As a monetarist, he thinks the explanation for recessions lies in an excess demand for money, the medium of exchange. To illustrate the point he has built a “minimalist” macroeconomic model, the smallest he can get away with. Its aim is to show what is required for a recession and, by what it leaves out, what is not necessarily required. Inevitably, it involves fruit.

In this model half the people have apples, the other half bananas. The two groups also have mangoes, but not as many. The apple-sellers would like more bananas; the banana-sellers more apples. But what they all want most is more mangoes.

People in this world can clearly gain from trading apples for bananas. And in a barter economy that is exactly what happens. But what if one of the fruits—mangoes—serves as the medium of exchange? What if apples and bananas can be traded for mangoes but not directly with each other? This parallels the real world where goods are typically traded for money but not each other.

In this scenario less fruit will change hands and potential gains from trade will be lost. People are unwilling to buy much with their mangoes, which they hoard. As a result they are themselves unable to sell much of their fruit for the mangoes that everyone else is similarly hoarding. This, according to Mr Rowe, is what a recession looks like. An excess demand for the medium of exchange depresses trade. Workers are unable to sell their labour for money, partly because they (and everyone else) are unwilling to part with their money for the fruits of anyone else’s labour.

Monetarists think the medium of exchange is distinctive for a variety of reasons. With any other good or asset, when people want more they must buy it. If they want more money, however, they can simply refrain from buying other things, a drop in spending characteristic of a recession. Similarly, if any other asset or good is in hot demand, its price will rise until the demand is quenched. But because everything is priced in money, it has no price of its own. It can rise in value only if the price of everything else falls, a deflationary pressure also characteristic of recessions.

The hidden fundamentals of macro

You cannot teach macro well without a strong intuitive feel for the subject. But the best way to gain a feel for the subject is to teach it. “I learn something every time,” Mr Rowe says. On Rate my Professors, a website, one student paid him the ultimate tribute: he made an 8.30am class worth attending. And how, at the end of his long teaching career, did his students show their appreciation? Naturally, by giving him an apple and a banana. ■



Underwater senses

Navy seals

Pinniped whiskers provide a model for a new generation of submarine detectors

VISION is useless in murky water. To deal with that deficiency dolphins have evolved sonar. They emit clicks and interpret the echoes to find their prey. But not all marine mammals are so equipped. Seals, for instance, have no sonar, yet that does not stop them finding distant meals as effectively as dolphins can. This puzzled researchers for years, until they discovered that the secret lies in the animals' whiskers—which they are now trying to copy, to develop novel underwater sensors.

An object moving through water leaves a series of miniature whirlpools in its wake. This trail is called a Karman vortex street. And that is what seals, using their whiskers, follow. As Michael Triantafyllou of the Massachusetts Institute of Technology (MIT) observes, “You can set a harbour seal loose to follow a towed fish, and even 30 seconds later they will be able to follow the exact track, whether it's straight or zig-zag or circular.”

Dr Triantafyllou and his colleagues at MIT's Centre for Ocean Engineering are one of several groups studying how seals do this. A rival team, led by Ben Calhoun of the University of Virginia, and involving the University of California, Santa Cruz; the Naval Undersea Warfare Centre Division at Newport, Rhode Island; and Woods Hole Oceanographic Institution, has recently completed a three-year investigation of the matter. Other projects are under

way at Jeju National University in South Korea and at Cleveland State University.

Seals can pick up the trail of fish such as herring when blindfolded and wearing earmuffs. Cover their whiskers, though, and supper eludes them. The bases of seal whiskers are rich in nerve cells, making them as sensitive as human fingertips. But that is not all there is to it. Under a microscope, seal whiskers are not circular when sliced through, as might naively be expected. Instead, they have an oval cross-section. Moreover, those whiskers' surfaces have an elaborate undulating geometry.

Oh my ears and whiskers!

This complex shape looked familiar to Dr Triantafyllou and his team. They had arrived at something similar when working on mooring lines for offshore gas rigs. Their purpose was to stop those lines vibrating as water flowed past, a phenomenon similar to telephone wires or power cables humming in the wind. Dr Triantafyllou confirmed his suspicions about the similarity when he tested a scaled-up 3D-printed model of an artificial seal whisker. This, too, failed to vibrate in what are known as laminar-flow currents (that is, those without eddies in them).

Paradoxically, this insensitivity to laminar flow increases sensitivity to vortices, as Dr Triantafyllou proved. He and his team towed an enlarged artificial whisker

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through water, to find out how a vortex street laid down in front of it affected its behaviour. They aligned their model whisker so that it was edge-on to the direction of travel, just as a real one would be. This caused it to cut through the water like a knife blade. Currents at right angles to its direction of travel, such as those created by vortices, exerted forces on its flat surfaces. These caused it to skirt around those vortices like a skier negotiating moguls, thus vibrating in a way that it would not when presented with a laminar current.

Bigger moving objects generate bigger vortices, so the amplitude of this vibration changed with the size of the object being followed. The frequency of the vibration changed with the object's speed. Assuming that this also happens with real whiskers, it would permit a seal to assess its target's bearing, size and velocity.

In 2016, with help from researchers at Singapore University of Technology and Design, Dr Triantafyllou built on these discoveries by attaching an artificial whisker to a membrane that, when distorted, generated a pulse of electricity. This arrangement proved sensitive to the slightest of water movements. The next stage is to understand what the pulses mean.

That is a challenge Dr Calhoun, at Virginia, has already taken up. Recruiting a trained seal for the task, he and his colleagues attached a recording device to one of the animal's whiskers. They found that even following the simplest object generates several types of vibration in this whisker. And a seal has dozens of whiskers.

Seals' brains can make sense of all this input. Dr Triantafyllou hopes to do likewise using artificial intelligence (AI). He and his colleagues will employ a form of AI called deep learning. The work involves training appropriate software on thou- ►►

► sands of different inputs from an array of artificial whiskers. Once trained, such software should be able to pick out patterns in the data and so learn to recognise the trails left by objects of different types and sizes, travelling at different speeds.

Dr Triantafyllou's team's purpose is to create a whisker-based sensor for underwater robots. This will detect the wakes of natural objects, such as fish and marine mammals, and artificial ones, such as other robots, surface ships and submarines.

Not surprisingly America's armed forces are taking a keen interest in all this. As well as the Naval Undersea Warfare Centre's involvement, some of the research has been supported by the Office of Naval Research. The navy hopes that vortex sensors may meet the challenge of spotting submarines, which are getting ever quieter and harder to find with sonar. A submarine leaves a far bigger trail than a fish, and that trail can persist for hours, even days. Fleets of small, bewiskered robots might thus be able to track otherwise undetectable submarines as easily as seals

find shoals of herring.

A vortex detector would have civilian applications too. A static detector would be able to measure turbulent currents flowing past it. Such a system, Dr Triantafyllou observes, might have been useful during the Deepwater Horizon oil spill in the Gulf of Mexico, in 2010. Then, vortex sensors could have helped map the plumes of oil released, helping predict the spread of the spill. Nor are applications restricted to marine settings. Appropriate sensors might measure liquid flowing turbulently through pipes and air flowing similarly over aircraft wings.

Extending vortex sensors into the air brings to mind another possible zoological analogy. Nightjars (which are, as their name suggests, nocturnal), prey on flying insects, especially moths. The assumption has always been that these birds have particularly good night vision. What they definitely have, though, are arrays of whiskers around their beaks. Time, perhaps, to get the microscopes out again, to see exactly what shape these whiskers are. ■

lers driven by electric motors. Airbus says the craft are fitted with batteries which use an "advanced chemistry" and are recharged by "novel" solar cells that cover their wings. But it will provide no other details for fear of tipping off rivals, of whom there are several. (Though one potential competitor, Facebook, closed its own high-altitude-solar-powered-drone operation earlier this year with a view to using drones built by others to provide internet access in remote regions.) At the opening of the Farnborough factory, in July, the wings of the three Zephyrs then on the production line were carefully covered, in order to avoid prying eyes.

Rather than selling the craft outright, Airbus plans to use them to conduct particular jobs for particular customers, says Nigel Chandler, head of sales for the operation. A craft thus leased out might engage in Earth-observation tasks such as maritime surveillance or detecting forest fires—or it might, by travelling in small circles, act as an internet node or as a platform for mobile telephony. Moreover it could, if required, be moved around in mid mission, for example to act as an observation platform for a disaster area. That would both be much simpler than repositioning a satellite and cheaper to operate.

Airbus will run its Zephyr service from a base at Wyndham, Western Australia, that will open later this year. This is surrounded by a large area of unrestricted airspace and has reliable weather for landings and take-offs (like landings, these also involve people giving the craft a helping hand). Depending on conditions, a Zephyr on the move can travel between 1,000km and 2,000km a day, so in principle only this one base is needed to serve the world. Airbus will, though, offer a portable ground-station and launching services in other parts of the world, for those customers who do not wish to wait for a craft to arrive under its own (or, rather, the sun's) power from Australia. ■

Aerospace

A breath of fresh air

FARNBOROUGH

Meet Zephyr, a high-flying drone that can do the work of a satellite

ON AUGUST 6th a flimsy-looking pilotless aircraft, the Zephyr S, came slowly in to land at an undisclosed location in Arizona, and was caught by a group of people jogging along beside it. The reception committee was needed because the craft, which weighs less than 75kg, lacks an undercarriage—or, indeed, anything else that would add unnecessary weight. The touchdown meant the Zephyr S had set a new flight-endurance record for a drone, of 25 days, 23 hours and 57 minutes. The point of doing so was to show that solar-powered aircraft of this sort can compete with satellites in the markets for Earth observation and telecommunications. This has led some people to dub them "pseudo-satellites". The idea is that eventually they will stay aloft for months.

The previous endurance record for drones, of just over 14 days, was set in 2010 by the Zephyr 7, an earlier version of this aircraft. The Zephyr 7 was developed by QinetiQ, a British defence company. In 2013 QinetiQ sold the Zephyr programme to Airbus, a European aerospace firm. Airbus has now built, at Farnborough, in Britain, a factory to make them. The model S, with a wingspan of 25 metres, will soon be joined by a bigger, more advanced version, the model T.

Zephyrs fly in the stratosphere. During daylight hours they cruise at an altitude of about 21km. At night, when solar energy is unavailable and they must rely solely on their batteries, they make a slow but powered and controlled descent to 16.7km. That, though, is still well above troublesome weather, and also clear of commercial aircraft.

They are powered by a pair of propel-



Dawn's early light

Astronomy

Set the controls for a part of the sun

A new probe will study why the sun's atmosphere is hotter than its surface

UNTIL February, when the first of SpaceX's Falcon Heavy lifters was launched, the world's most powerful rocket was the Delta IV Heavy. On August 11th, if all goes according to plan, one of these will take off from Cape Canaveral carrying a craft called the Parker Solar Probe.

This probe, as its name suggests, is designed to get close to the sun. The rules of orbital mechanics mean that requires a lot of energy. Hence the need for a launcher as powerful as the Delta IV Heavy. A combination of rocket thrust and a series of gravitational "assists" from Venus will put the probe in a long, looping solar orbit. At its closest, it will fly within 6m kilometres of the nearest thing the sun has to a surface—the top of the layer known as the photosphere, which the naked eye perceives as the solar disc. That will bring it 85% closer to the photosphere than Mercury, the planet closest to the sun, ever gets.

This path will take it through the corona, a shell of superhot plasma that surrounds the photosphere and which is visible to the naked eye only during a total solar eclipse. Flying through the corona is no easy task. Even in Earth's comparatively distant orbit, sunlight is powerful enough to mean spacecraft must have beefy cooling systems. Parker will endure sunlight more than 450 times as intense. The craft will therefore be shielded by a special insulator—a slab of carbon-composite more than 11cm thick. One advantage of its close encounters with the sun is that there will be no shortage of solar power to run its instruments. But its solar panels will have to be cooled continuously by circulating water, the waste heat then radiated into space.

The Parker Space Probe is named after Eugene Parker, an American astrophysicist, who studied the nature of the corona, and also of the solar wind (the steady stream of charged particles released by the corona). Both are in his robotic namesake's sights.

Though much investigated, neither corona nor wind is well understood. The sun is powered by nuclear fusion, a result of the crushing pressures deep in its core. Here, temperatures exceed 15m degrees. Farther out, they are lower. The photosphere is a comparatively balmy 5,400°C. The corona, though, bucks this trend. The wispy plasma of which it is composed varies in temperature from 1m to 3m degrees.

Exactly why remains a matter of debate. The laws of thermodynamics dictate that heat cannot flow from a cold region to

Wild medicine

Scratching an itch

Mangled millipedes can treat threadworm infestations

MANY animals are herbalists. Pregnant elephants eat particular leaves to induce the births of their calves. Birds keep bloodsucking bugs at bay by weaving insect-repelling plants into their nests. Fruit flies lay their eggs on fermenting matter that is rich in ethanol, which drives away parasitic wasps. There is, in other words, a whole pharmacopoeia of botanical products out there. Examples of animals employing the products of other animals for medical purposes are, by contrast, rare. But one case has just come to light. Louise Peckre of the German Primate Centre, in Göttingen, has found that red-fronted lemurs treat threadworm infestations in the gut and around the anus with millipede juice.

Unlike their fellow myriapods the centipedes, which are venomous, millipedes have no chemical weapons. But they have chemical defences, particularly benzoquinones. These can blind, burn and poison would-be predators, and also act as insect repellents. It was in this context, as she describes in a paper in *Primates*, that Ms Peckre watched with fascination the habit of some red-fronted lemurs she had under observation in the Kirindy Forest, in Madagascar, of gnawing on benzoquinone-rich millipedes and rubbing the remains around their anuses, then swallowing them. She saw six lemurs doing this and was left wondering, why?

Some monkeys rub millipede juice onto their skin to ward off biting insects, so what she had seen was not completely unexpected. But Ms Peckre's lemurs were not behaving in a way that suggested repelling insects was their purpose. Lemurs' anal regions are furry and are rarely attacked by bloodsucking arthropods. Nor would swallowing dismembered pieces of millipede seem likely to deter something that was attacking the

skin. Pieces of the puzzle started to come together, though, when she and her colleagues noticed, by analysing the lemurs' faeces, that times of peak millipede use coincided with threadworm infestations in the lemurs' guts.

Threadworms have the repulsive habit of slithering out of their host's anus at night and laying their eggs in the soft flesh nearby. The site where the eggs are laid itches. The infested individual either scratches or licks the site, gets the eggs on its fingers or tongue, and ultimately either swallows them or passes them on to others during grooming sessions.

Human beings, who are frequent hosts of threadworms, can deal with them using drugs such as benzimidazole, which are similar in structure to benzoquinone. Ms Peckre therefore suspects that her lemurs are employing millipedes in lieu of a trip to the pharmacy.



Good news for lemurs. Bad for millipedes

a hot one, so whatever is doing the heating must rely on something more complicated than simple radiation or convection. Researchers have fingered two separate processes, says Andrew Coates, a heliophysicist at University College London.

One involves solar flares. These are magnetically driven eruptions of material from the sun's surface. The magnetic fields involved snap and twist into new configurations in a process called magnetic reconnection. That releases energy, which ends up in the corona. But not enough to account, by itself, for the corona's scorching

temperatures. The balance, says Dr Coates, is thought to come from sound waves that start in the solar depths and deposit energy in the sun's outer layers.

The main mystery of the solar wind that the Parker probe will study is why it blows so fast. By the time it leaves the sun, it is travelling in excess of 400km per second. This is faster than the speed of sound in the thin soup of particles known as the heliosphere that suffuses the solar system. Exactly how the solar wind attains such speeds is not understood, but once again the process seems to occur in the corona. ■



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Egypt after the revolution

Brothers, generals and suckers

A foreign correspondent attempts to understand Egypt—a task that has confounded successive American governments

IN 2005 a middle-aged Egyptian army officer arrived in Carlisle, Pennsylvania. While taking classes at the US Army War College, the officer, a devout Muslim, sometimes led Friday prayers at the local mosque. During campus debates he took exception to those who claimed that political Islam was incompatible with democracy. In his final paper he argued that Arab democracies must include Islamists, even “radical ones”.

So when the Muslim Brotherhood, Egypt’s main Islamist movement, won the country’s first free and fair elections in 2011-12, the officer, Abdel-Fattah al-Sisi, seemed keen to work with the group. He was appointed defence minister and quickly gained the trust of the new president, Muhammad Morsi, a Brotherhood leader. Mr Sisi would show up at meetings with his sleeves rolled up and hands wet, as though he had been washing himself for prayer. Yet, less than two years later, he ousted Mr Morsi, slaughtered hundreds of his followers and imprisoned what was left of the Brotherhood’s leadership.

Egypt, where a quarter of Arabs live, has always been something of an enigma. Despite the public’s disenchantment with Hosni Mubarak, the long-term dictator, few predicted the revolution of 2011 that laid the groundwork for Mr Morsi’s election and Mr Sisi’s subsequent coup. “Nothing is going to happen in Egypt,” editors at the *New York Times* told David Kirkpatrick

Into the Hands of the Soldiers: Freedom and Chaos in Egypt and the Middle East.

By David Kirkpatrick. *Viking*; 384 pages; \$28. *Bloomsbury Publishing*; £21

when he took over the paper’s Cairo bureau at the start of 2011. Weeks later Mr Mubarak was toppled and the political order was thrown into disarray. In the years that followed, soldiers, Islamists, liberals and the old elite jostled for power. None could be trusted.

In his new book, “Into the Hands of the Soldiers”, Mr Kirkpatrick describes these tumultuous times in compelling detail. The author is honest about how hard it was to interpret events, grasp the motives of people such as Mr Sisi and Mr Morsi and predict the direction in which Egypt was heading. “I brought with me the standard Western assumptions,” he admits. “Almost all of it was wrong.” But Mr Kirkpatrick, who dodged bullets and official harassment, deciphered the mystery. The same cannot be said of the foreign powers, especially America, that watched as Egypt’s democracy crumbled.

The Islamist riddle

The Brotherhood was Egypt’s biggest puzzle. “For a supposedly secret society, they were easy to spot,” writes Mr Kirkpatrick. Often middle-aged and middle-class, they kept their beards trimmed and wore chi-

nos and button-down shirts. But, before the revolution, their intentions were difficult to discern. When Hassan al-Banna founded the group in 1928 he was fuzzy on whether it should be militant or peaceful, political or spiritual, democratic or authoritarian. Egypt’s dictators by turns persecuted, embraced and tolerated the Brotherhood. America, which lavishes military aid on Egypt, followed their lead.

Opponents of the Brotherhood warned foreign journalists that the group wanted to “Islamise” Egypt. But to Mr Kirkpatrick—and your reviewer, a former Cairo correspondent—the Brothers said all the right things. They advocated the separation of mosque and state, free expression and equality for women and non-Muslims. These views were more liberal than those of mainstream Egyptians. Moreover, to avoid a backlash, the group said during the uprising that it would not seek more than a third of parliamentary seats; later it said it would not field a presidential candidate in the polls following the revolution.

But when those elections came around, the Brotherhood contested most of the seats, winning nearly half and also the presidency. After his victory, Mr Morsi installed Brothers in powerful positions. Months later he issued a decree holding himself above judicial review and pushed through a constitution opposed by liberals. “We thought we were losing our country,” one young Egyptian told *The Economist*. Millions took to the streets in 2013 calling for Mr Morsi to go. Egypt’s so-called liberals saw those protests as a rerun of the 2011 revolution—another organic uprising; another chance for democracy, as they defined it.

They were nothing of the sort. Egypt’s liberals were not taking back the country—the army was. A slow-motion coup had been in the works since Mr Morsi was ►►

► elected. Egypt's generals did not even want to recognise his victory. Mubarak-era judges duly dissolved the parliament. The president's own foreign minister, a non-Islamist, admitted to poisoning other governments against him, while the intelligence services worked covertly to bring the Brotherhood down. The United Arab Emirates, whose authoritarian rulers fear democracy, especially if it has an Islamic tint, funnelled millions of dollars to the supposedly grassroots opposition to Mr Morsi. Much of it went through Mr Sisi's defence ministry.

The coup befuddled America. As Mr Morsi teetered, "Washington did not speak with a single, credible voice," writes Mr Kirkpatrick. Barack Obama, then America's president, opposed the takeover and leant on Mr Morsi to make concessions to save his skin. (Mr Morsi did invite the opposition for talks—they declined.) But many American officials seemed resigned to, or even encouraged, a military power-grab. Chuck Hagel, then secretary of defence, told Mr Sisi: "I don't live in Cairo, you do. You do have to protect your security, protect your country." John Kerry, then secretary of state, said later that the generals "were restoring democracy".

American officials couldn't get their facts right. James Mattis, then the commander of American forces in the region, blamed the Brotherhood alone for Egypt's troubles. He later claimed that the constitution backed by Mr Morsi had been "rejected immediately by over 60% of the people". In fact, about two-thirds of voters approved the charter, which is similar to the one Egypt has now. Mr Mattis and Michael Flynn, then head of the Defence Intelligence Agency, lumped the Brotherhood in with the jihadists of al-Qaeda and Islamic State, even though the Brothers repeatedly condemned those groups and opposed violence. Both men were given top jobs by Donald Trump.

It is true that the roots of al-Qaeda and other jihadist groups can be traced back to Egyptian jails, which began filling with resentful Islamists in the 1960s. Now the jails are bursting again, so much so that new ones have had to be built. The Islamists have been joined by liberals, who quickly soured on Mr Sisi's inept and draconian rule. Egypt now holds about 30,000 political prisoners, including many journalists. Your reviewer was berated by the foreign ministry for, among other things, referring to Mr Sisi's takeover as a coup (a label America refused to apply). Mr Kirkpatrick had it worse. Talk-show hosts denounced him on air as an enemy of the state.

The coup also fuelled a jihadist insurgency in Sinai that continues to torment Egypt. Yet American officials, citing renewed "stability", argued that the Brotherhood's overthrow was the least bad option. The alternative "wasn't Jeffersonian

democracy", Mr Kerry tells the author. "Over whatever number of years we have put about \$80bn into Egypt. Most of the time, this is the kind of government they had—almost all of the time. And the reality is, no matter how much I wish it was different, it ain't going to be different tomorrow."

Today's American administration does not even wish it were different. To them, Mr Sisi has said all the right things. He wants to moderate Islam and reform the economy. He calls Mr Trump "a unique personality that is capable of doing the impossible". Mr Trump, in turn, celebrates Mr Sisi's tough leadership and calls him "a fantastic guy". Like so many others, the American president seems unconcerned that autocracy is again breeding misery and extremism in Egypt. ■

The story of opium

High and mighty

Milk of Paradise: A History of Opium. By Lucy Inglis. Pegasus Books; 448 pages; \$28.95. Macmillan; £25.00

HUNTINGDON, West Virginia, is dying. As a share of the town's population, overdoses kill more than ten times the American average. Startling numbers of babies are reportedly addicted to opioids at birth. The country at large is suffering, too: 42,000 Americans died from opioid overdoses in 2016, compared with 58,000 fatalities in the Vietnam war. This is not how things were meant to be. Scientists developed opioids to dull pain, not cause it.

As Lucy Inglis recounts in her sweeping new history of opium, the tension be-

tween the substance's medicinal virtue and its dangers is ancient. From their earliest uses, opium and its cousins have both soothed and troubled people. Roman herbalists used the drug to combat dysentery, even as they warned against the "chilled extremities" and "laboured breath" of overdosing. Two thousand years later, a doctor anguished by the addictive power of morphine reflected that no drug "has been so great a blessing and so great a curse to mankind".

Ms Inglis untangles these contradictions with gusto, guiding readers from primitive Neolithic experiments with poppies to the modern "war on drugs". Her narrative is propelled by savagery and greed. In 1621 the Dutch helped secure trade in the East Indies (which included opium) by murdering and enslaving 13,000 people on the islands east of Java. Two centuries later Victorian merchants got rich by forcing the "vile dirt" into China, spawning an estimated 12m addicts.

Yet if the opium trade led to violence, violence has also led to the development of innovative applications for opium. The syrette, a sealed single-use dose of painkilling morphine, emerged from the mud and guts of the first world war. Severely wounded troops in Afghanistan have been treated using lollipops laced with fentanyl, a powerful synthetic opioid.

Ms Inglis does not just trace the arc of history. She wallows in the exotic details of her story—from the sharpened bamboo the Chinese used to fight British interlopers, to the heroin pills "flavoured with rosewater and coated with chocolate" that were once sold over the counter. Remarkable personalities scamper past. Ralph Fitch, an Elizabethan adventurer and opium trader, returned with tales of the king of Thailand and his pet white elephants, all "dressed in cloth of gold". Antoine Guérini fought for the French resistance before making it big in the heroin business. There are energetic descriptions of drug culture, from the Romantic poets to David Bowie.

Sometimes "Milk of Paradise" reads like fiction. Occasionally the author over-crowds this narrative with incidental characters; in what is a panoramic survey, she is prone to the odd tendentious claim. Nonetheless, this is a deeply researched and captivating book. The final chapters, in which Ms Inglis escapes the archives, are especially compelling.

Her interviews provide rich insights into the modern heroin trade. Asked if his family grows poppies, one Afghan farmer is blunt. "Sure. Who doesn't?" A study of the online drug world is similarly revealing. One forum helped addicts avoid dangerous, fentanyl-spiked heroin. The Silk Road website facilitated over a million drug transactions in just two years. Like opium itself, Ms Inglis discovers, the internet has been both a blessing and a curse. ■



Consider the poppies of the field



Icelandic fiction

An isle full of noises

CoDex 1962. By Sjon. Translated by Victoria Cribb. Sceptre; 527 pages; £18.99. To be published in America by MCD in September; \$30

SINCE the age of the medieval sagas, the stories told by Icelanders have helped enthrone their lonely mid-Atlantic island as a narrative superpower. From this “northern periphery”, argues this bewitching trilogy of short novels, a yarn-spinner must deploy “every trick in the book” to “think your way into human history”. Poet, novelist and lyric-writer for his compatriot Björk, Sjon commands more tricks than most. Born, as Sigurjon Sigurosson, in Reykjavik in 1962, the prolific author has beguiled audiences abroad with shape-shifting fictions such as “The Blue Fox”, “From the Mouth of the Whale” and “Moonstone”. His stories compound the dreamscapes of Surrealism, the marvels of Icelandic folklore and a pop-culture sensibility into free-form fables. Call it magic realism under Nordic lights.

“CoDex 1962” gathers three linked works—published in Icelandic in 1994, 2001 and 2016—into one volume. In his own voice, interspersed with episodes from other lives, Sjon’s protagonist Jósef Loewe first recounts the “love story” of his father Leo’s meeting with Marie-Sophie, a chambermaid, and Leo’s escape, as a persecuted Jew, from Nazi Germany. Leo is a mystical alchemist; Jósef voyages to Iceland in 1944 as a clay doll that lacks the breath of life. Or so he claims. The middle section, a “crime story”, sees Leo settled in late-1950s Reykjavik as a ceramics decorator, embroiled in a murder plot with a “philatelic werewolf”. Jósef still waits to be born.

In August 1962, while “the vault of heaven rumbled” with nuclear tests, Jósef at

Imagining nuclear war

Under a mushroom cloud

The 2020 Commission Report on the North Korean Nuclear Attacks Against the United States: A Speculative Novel. By Jeffrey Lewis. Mariner Books; 304 pages; \$15.99. WH Allen; £9.99

OPEN-SOURCE intelligence is the art of learning things by procuring and analysing unclassified (if not always very accessible) evidence. Jeffrey Lewis, an expert on arms control and disarmament at the Middlebury Institute in Monterey, California, is a keen exponent of this craft. In “The 2020 Commission Report” he applies it to the near future.

The fiction is framed as an American government report, published in 2023, into the loss of 3m lives—1.4m of them Americans—to North Korean nuclear weapons in March 2020. Like the reports of the Roberts Commission on Pearl Harbour and the 9/11 Commission, it finds that the disaster could have been avoided, but that the evidence of the escalating threat was missed—because the people in charge were misreading the world they lived in. Mr Lewis’s message is that anyone who believes that either supine summitry or threats of a “bloody nose” are good responses to North Korea’s nuclear programme is guilty of just such a misreading today.

The imaginary sequence of errors—in software, communication, tactics, intelligence and politics—that leads to the spasm of mass murder is chillingly plausible. This is largely because, as the book’s notes make clear, most of them have already happened in real life. Jets have indeed strayed off course because of software glitches; airliners have been taken for military probes of air defences and shot down. Decision-makers have assumed that actions by one ally were sanctioned by another; America has tried to kill its adversary’s leaders on the eve of war. The commander-in-chief has tweeted threateningly in ALL CAPS.

Though some of the characters in the book are invented, its cast includes Presi-

dents Donald Trump and Moon Jae-in, plus Kim Jong Un and Jim Mattis, America’s defence secretary. Again, they mostly say and do things very like those they have said and done before. The harrowing tales of victims are similarly authentic; Mr Lewis has adapted many of them from accounts of survivors of Hiroshima and Nagasaki. The book’s American publication came one day after the anniversary of the Hiroshima bombing.

Fans of “Arms Control Wonk”, Mr Lewis’s podcast, will expect notes of absurdist and scornful humour; they will not be disappointed. More surprising is that, in a sense, the book is optimistic about American democracy. The devastating blow that it envisages might undo even the sturdiest polity. Given the existing rifts in American society at a time of relative peace, it is easy to see the recriminations and repercussions after a nuclear catastrophe capsizing its politics altogether. Yet Mr Lewis’s premise depends on America’s institutions continuing to function in recognisable form. That implies a bedrock faith in the resilience of the republic—more, perhaps, than soberly assessed open-source intelligence might warrant.



last enters the world—on the same day as the author. However, the genetic mutations spread by fallout from those thermonuclear “war drums” render him an invalid with a rare bone disease. Either an emissary from an occult domain, or merely “a disabled man who had trouble telling the difference between fiction and reality”, Jósef commits his life and dreams to tape as part of a research project. For all its ele-

ments of fantasy, this third “science-fiction story” draws on the actual scheme of a genomics corporation that sought to map the entire nation’s biological data in a “Book of Icelanders”. In Sjon’s telling, a similar firm hopes to yoke together “genetic purity and massive profits”.

Jósef, and Sjon, detest all pretence to purity. The villains of “CoDex 1962” believe in the power of isolation, and segregation. Its ►►

► heroes cross boundaries: between myth and history; reason and magic; male and female (Jósef dictates his testimony to Aleta, a trans Ukrainian woman). Sjon's tall tales celebrate such cultural contamination. Their style skips gleefully among a dozen genres, "visionary poems" to "futuristic films", "folk tales" to "gossip columns" (all namechecked by Jósef). Victoria Cribb, the sure-footed translator, keeps pace with every swerve.

In the opening segment, echoes of oth-

er satirical fantasias—whether Laurence Sterne's "Tristram Shandy" or Günter Grass's "The Tin Drum"—sometimes feel laboured. In contrast, Sjon's finale anchors his ingenuity to a moving plea for solidarity. Hrolfur, the entrepreneurial geneticist, yearns to "soar heavenwards into a world where imagination is the only law of nature that matters". "CoDex 1962" applauds the aim, but distrusts his means and motive. That wild flight remains a mission not for scientists but for story-tellers. ■

transporting cattle on northern highways. Pawan Poojary, 19, merrily duped Americans through phone-scams, partly for the sheer joy of deceiving people who "considered themselves superior to the rest of the world". (Eventually his conscience drove him to tip off the American authorities.)

That these young Indians are "dreamers" is incontrovertible; the idea that they are "changing the world"—as Ms Poonam's subtitle asserts—is more questionable. But her book offers valuable insights into the politics of identity and resentment that have gripped much of the world. It demonstrates, for instance, that the perfect past of nostalgia need not lie within living memory. Nor is that fantasy restricted to the middle-aged. Many devotees of Mr Modi want to bring back the glories of pre-colonial, pre-Islamic Hindu kingdoms from centuries before they were born. Greatness is a point forever receding in the distance, and yet somehow within reach.

How did this politics of anger go global? A clue can be found in the structure of this book. "Dreamers" begins and ends with stories of young Indians deploying assets they acquired from the West against credulous Americans: content-free listicles and call-centre databases. Silicon Valley's social-media platforms feature throughout as the foundation of young Indians' social lives. They spend their leisure time staring into their phones. The part this technology has played in the rise of populism in the West has been much discussed. That its spread in other parts of the world has been coterminous with that of smartphones and internet connections is noted less frequently. Ms Poonam offers empirical, if anecdotal, evidence of that overlap.

She does not dwell on statistics. But what "Dreamers" lacks in citations of official data it makes up for through its Hindi-speaking author's ability to draw out her subjects' inner thoughts. The picture she paints is impressionistic. It is also alarming. If young Indians really are changing the world, it may not be for the better. ■

Young people in India

Dreams and nightmares

A study of India's new generation finds its members as angry as they are ambitious

VINAY SINGHAL and his brother, Parveen, co-founded WittyFeed, a content-factory that churns out clickbait, as a Facebook page in 2011. By 2016 it had its own website, 150 writers around the world, a valuation of \$30m and a big HQ in Indore, a third-tier city about halfway between Mumbai and Delhi. Mr Singhal has bigger aspirations yet; for a while he thought he might aim to become prime minister. And why stop there? "I want to lead humanity...I want to lead Mars," he tells Snigdha Poonam, an Indian journalist.

"Dreamers: How Young Indians are Changing the World", Ms Poonam's first book, contains an abundance of bombastic characters. "Eyes red from sleepless nights of plotting his and his country's rise to glory, Singhal can seem like the face of the new India," Ms Poonam writes. "This new India", she adds wryly, "is not always easy to like." Quite. The country she describes is deeply worrying.

Two-thirds of India's 1.3bn citizens are under 35. Roughly 1m people enter the workforce every month. Few find jobs; most graduates are too poorly educated to be employable. Meanwhile a numerical gender imbalance means many men remain single. Yet India's young men—Ms Poonam's interlocutors are mostly men, because they dominate public spaces—believe they can have it all.

And they believe they are owed it all. Unlike previous generations, they see the pleasures of the wider world in their Facebook feeds, Instagram timelines and WhatsApp chats, and wonder why everybody else goes on foreign holidays, drives imported cars, and parties with vodka and girls. They blame the Muslims, the West, the Congress government and its decades of socialism and appeasement of minorities. Now Narendra Modi, whose muscular brand of Hindu nationalism has fired

Dreamers: How Young Indians are Changing the World. By Snigdha Poonam. Harvard University Press; 288 pages; \$17.95. Hurst; £14.99

up the young, is prime minister. He will put those miscreants in their place.

Ms Poonam travels to small towns, largely in Hindi-speaking parts of north and central India, and repeatedly finds the same mix of aspiration and anger. At a motivational class in New Delhi, 32-year-old Shahnawaz Chaudhary, who wants to become president, explains to a paying audience that the British destroyed India. Vikas Thakur, a 29-year-old social-media warrior for the ruling Bharatiya Janata Party and an aspiring MP, boasts about "flattening his enemies" when he was at college. Arjun Kumar, 19, carries around an iron rod on Valentine's Day in the hope of finding Hindu-Muslim couples to intimidate. Sachin Ahuja, 26, leads a gang of cow protectors on midnight raids, looking for Muslims



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MINISTRY OF INFRASTRUCTURE AND ENERGY NOTIFICATION OF THE CONTRACT

1. **Name and Address of Contracting Authority:** Ministry of Infrastructure and Energy, Republic of Albania. Address: Str. Abdi Toptani, No. 1, Tirane, Albania.
2. **Name and address of Person Responsible:** Enea Karakaci, Ministry of Infrastructure and Energy, (E-mail: enea.karakaci@infrastruktura.gov.al, cc: ervin.duraj@infrastruktura.gov.al).
3. **The Form, Object and Type of Contract:** Selection of Project for the construction of a photovoltaic plant for electricity generation in the Akërne Zone (Vlora) with installed capacity of 50 MW, as part of the Support Measures, and additional capacity of 20MW to 50 MW, which will not be part of the Support Measures.
4. **Type of Competitive Procedure:** Open Procedure.
5. **Project Land:** The location of the Project is Akërne area in Vlora Municipality at Cadastral Zone Nr 1007, Vlora, Albania.
6. **Duration of Project Agreement:** 30 years, with the right to renew the contract.
7. **Power Purchase Agreement:** As part of the Support Measures, a Power Purchase Agreement will be signed for a purchase capacity of 50 MW for a duration of 15 years.
8. **Time Limit for Execution of Project:** 18 months from Effective Date, which is the date of signing of all Project agreements.
9. **Bid Submission Deadline:** 12.00 Central European Time on 17th September 2018.
10. **Bid Opening:** 12:00 Central European Time on 17th September 2018.
11. **Bid Validity Period:** Bids must be valid for 150 days from final deadline for submission.
12. **Bid Security:** Euro 200,000 (Euro Two Hundred Thousand), payable in the form given in the Bidding Procedure Documents.
13. **Payment of the Participation Fee in the Bidding Procedure:** The fee for participation in the Bidding Procedure is Euro 2,000 (Euro Two Thousand).
14. **Bidding Eligibility and Evaluation:** As set forth in the Bidding Procedure Documents.

Additional information about the Bidding Procedure documents can be obtained from the Contracting Authority's website: <http://infrastruktura.gov.al/>



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Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment	Current-account balance		Budget balance	Interest rates, %	Currency units, per \$	
	latest	qtr*	2018†	latest	latest	2018†	rate, %	latest 12 months, \$bn	% of GDP 2018†	% of GDP 2018†	10-year gov't bonds, latest	Aug 8th	year ago
United States	+2.8 Q2	+4.1	+2.9	+3.8 Jun	+2.9 Jun	+2.4	3.9 Jul	-465.5 Q1	-2.7	-4.6	2.94	-	-
China	+6.7 Q2	+7.4	+6.6	+6.0 Jun	+2.1 Jul	+2.1	3.8 Q2§	+68.3 Q2	+0.6	-3.7	3.19§§	6.83	6.70
Japan	+1.1 Q1	-0.6	+1.2	-1.2 Jun	+0.7 Jun	+1.0	2.4 Jun	+201.8 Jun	+3.7	-3.8	0.09	111	111
Britain	+1.2 Q1	+0.9	+1.3	+0.8 May	+2.4 Jun	+2.4	4.2 Apr††	-106.3 Q1	-3.5	-1.8	1.40	0.78	0.77
Canada	+2.3 Q1	+1.3	+2.3	+3.8 May	+2.5 Jun	+2.2	6.0 Jun	-53.8 Q1	-2.6	-2.3	2.36	1.31	1.27
Euro area	+2.1 Q2	+1.4	+2.1	+2.4 May	+2.1 Jul	+1.7	8.3 Jun	+474.0 May	+3.4	-0.7	0.40	0.86	0.85
Austria	+3.4 Q1	+9.7	+2.9	+6.2 May	+2.0 Jun	+2.2	4.7 Jun	+9.5 Q1	+2.3	-0.6	0.48	0.86	0.85
Belgium	+1.3 Q2	+1.2	+1.6	+2.9 May	+2.2 Jul	+2.0	6.0 Jun	+0.2 Mar	nil	-1.1	0.75	0.86	0.85
France	+1.7 Q2	+0.6	+1.8	-0.9 May	+2.3 Jul	+1.9	9.2 Jun	-10.2 Jun	-0.6	-2.4	0.71	0.86	0.85
Germany	+2.3 Q1	+1.2	+2.1	+2.5 Jun	+2.0 Jul	+1.8	3.4 Jun‡	+323.6 Jun	+7.8	+1.1	0.40	0.86	0.85
Greece	+2.3 Q1	+3.1	+1.8	+0.9 May	+1.0 Jun	+0.7	20.2 Apr	-2.0 May	-1.2	-0.3	4.00	0.86	0.85
Italy	+1.1 Q2	+0.7	+1.2	+1.7 Jun	+1.5 Jul	+1.3	10.9 Jun	+56.1 May	+2.6	-2.0	2.92	0.86	0.85
Netherlands	+2.8 Q1	+2.3	+2.7	+3.2 May	+2.1 Jul	+1.6	4.8 Jun	+91.3 Q1	+9.6	+0.8	0.52	0.86	0.85
Spain	+2.7 Q2	+2.3	+2.7	-2.0 Jun	+2.3 Jul	+1.7	15.2 Jun	+20.7 May	+1.4	-2.7	1.28	0.86	0.85
Czech Republic	+3.4 Q1	+2.2	+3.5	+3.4 Jun	+2.6 Jun	+2.2	2.4 Jun‡	+0.9 Q1	+0.5	+0.9	2.22	22.1	22.3
Denmark	-1.4 Q1	+1.8	+1.6	-1.8 Jun	+1.1 Jun	+1.0	3.9 Jun	+20.2 May	+7.4	-0.7	0.36	6.42	6.34
Norway	+0.3 Q1	+2.5	+1.9	+0.6 Jun	+2.6 Jun	+2.3	3.8 May††	+22.8 Q1	+7.4	+5.4	1.82	8.22	7.95
Poland	+5.2 Q1	+6.6	+4.4	+6.8 Jun	+2.0 Jul	+1.7	5.9 Jul§	-1.0 May	-0.6	-2.2	3.12	3.67	3.63
Russia	+1.3 Q1	na	+1.7	+2.1 Jun	+2.5 Jul	+3.0	4.7 Jun§	+64.6 Q2	+4.0	+0.3	8.13	64.7	59.9
Sweden	+3.3 Q2	+4.2	+2.8	+5.4 Jun	+2.1 Jun	+1.9	7.2 Jun§	+16.8 Q1	+3.3	+1.1	0.56	8.95	8.19
Switzerland	+2.2 Q1	+2.3	+2.2	+9.0 Q1	+1.2 Jul	+0.8	2.6 Jun	+72.9 Q1	+8.9	+0.8	0.03	0.99	0.98
Turkey	+7.4 Q1	na	+4.3	+7.0 May	+15.8 Jul	+12.8	9.6 Apr§	-57.6 May	-5.9	-2.8	19.08	5.29	3.53
Australia	+3.1 Q1	+4.2	+2.9	+4.3 Q1	+2.1 Q2	+2.2	5.4 Jun	-36.8 Q1	-2.5	-1.0	2.66	1.35	1.27
Hong Kong	+4.7 Q1	+9.2	+3.4	+1.0 Q1	+2.4 Jun	+2.1	2.8 Jun††	+14.2 Q1	+3.9	+1.9	2.23	7.85	7.82
India	+7.7 Q1	+10.1	+7.2	+3.2 May	+5.0 Jun	+4.6	5.6 Jul	-48.7 Q1	-2.4	-3.6	7.78	68.7	63.6
Indonesia	+5.3 Q2	na	+5.3	+11.6 May	+3.2 Jul	+3.5	5.1 Q1§	-20.9 Q1	-2.4	-2.5	7.68	14,435	13,314
Malaysia	+5.4 Q1	na	+5.7	+3.0 May	+0.8 Jun	+0.8	3.3 May§	+12.2 Q1	+2.9	-3.3	4.05	4.08	4.29
Pakistan	+5.4 2018**	na	+5.4	+2.7 May	+5.8 Jul	+5.2	5.9 2015	-18.0 Q2	-5.8	-5.4	10.00†††	124	105
Philippines	+6.0 Q2	+6.1	+6.6	+17.9 Jun	+5.7 Jul	+5.1	5.5 Q2§	-1.9 Mar	-1.6	-2.7	6.43	53.1	50.4
Singapore	+3.8 Q2	+1.0	+3.2	+7.4 Jun	+0.6 Jun	+0.8	2.1 Q2	+61.7 Q1	+18.6	-0.7	2.46	1.36	1.36
South Korea	+2.9 Q2	+2.8	+2.8	-0.4 Jun	+1.5 Jul	+1.7	3.7 Jun§	+72.5 Jun	+4.8	+0.9	2.56	1,120	1,125
Taiwan	+3.3 Q2	+3.1	+2.6	+0.4 Jun	+1.7 Jul	+1.6	3.7 Jun	+84.8 Q1	+13.4	-0.9	0.84	30.6	30.2
Thailand	+4.8 Q1	+8.1	+4.0	+4.7 Jun	+1.5 Jul	+1.2	1.1 Jun§	+50.3 Q1	+9.4	-2.9	2.64	33.2	33.3
Argentina	+3.6 Q1	+4.7	+1.3	-2.9 Jun	+29.5 Jun	+24.2	9.1 Q1§	-33.8 Q1	-4.7	-5.3	9.42	27.5	17.7
Brazil	+1.2 Q1	+1.8	+1.6	+3.5 Jun	+4.5 Jul	+3.9	12.4 Jun§	-13.9 Jun	-1.0	-7.0	9.00	3.75	3.14
Chile	+4.2 Q1	+4.9	+3.7	+5.0 Jun	+2.7 Jul	+2.4	7.2 Jun§††	-3.1 Q1	-1.6	-2.0	4.52	643	651
Colombia	+2.8 Q1	+2.8	+2.5	+2.9 May	+3.1 Jul	+3.3	9.1 Jun§	-9.8 Q1	-3.1	-2.0	6.83	2,905	2,997
Mexico	+2.7 Q2	-0.4	+2.2	+0.3 May	+4.6 Jun	+4.6	3.4 Jun	-15.9 Q1	-1.7	-2.3	7.69	18.4	17.9
Peru	+3.2 Q1	+5.6	+3.7	+10.5 May	+1.6 Jul	+1.4	6.6 May§	-2.9 Q1	-1.6	-3.5	na	3.27	3.24
Egypt	+5.4 Q1	na	+5.4	+3.8 May	+14.4 Jun	+16.1	10.6 Q1§	-7.7 Q1	-2.4	-9.6	na	17.9	17.8
Israel	+4.1 Q1	+4.7	+3.9	+4.2 May	+1.3 Jun	+1.3	3.9 Jun	+9.7 Q1	+2.2	-2.4	1.92	3.68	3.61
Saudi Arabia	-0.9 2017	na	+1.0	na	+2.1 Jun	+4.4	6.1 Q1	+21.6 Q1	+7.5	-3.9	na	3.75	3.75
South Africa	+0.8 Q1	-2.2	+1.5	+1.3 Jun	+4.6 Jun	+4.8	27.2 Q2§	-12.2 Q1	-3.2	-3.6	8.69	13.4	13.2

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. †††3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

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Markets

	Index Aug 8th	% change on one week	Dec 29th 2017	
			in local currency	in \$ terms
United States (DJIA)	25,583.8	+1.0	+3.5	+3.5
China (Shanghai Comp)	2,744.1	-2.8	-17.0	-20.9
Japan (Nikkei 225)	22,644.3	-0.5	-0.5	+1.0
Britain (FTSE 100)	7,776.7	+1.6	+1.2	-3.7
Canada (S&P TSX)	16,315.1	-0.4	+0.7	-3.4
Euro area (FTSE Euro 100)	1,214.3	-0.3	+0.4	-3.0
Euro area (EURO STOXX 50)	3,493.6	-0.4	-0.3	-3.7
Austria (ATX)	3,413.6	-0.4	-0.2	-3.6
Belgium (Bel 20)	3,863.7	-0.8	-2.9	-6.1
France (CAC 40)	5,501.9	+0.1	+3.6	+0.1
Germany (DAX)*	12,633.5	-0.8	-2.2	-5.5
Greece (Athex Comp)	758.0	-0.5	-5.5	-8.7
Italy (FTSE/MIB)	21,790.3	nil	-0.3	-3.6
Netherlands (AEX)	573.7	+0.1	+5.3	+1.8
Spain (IBEX 35)	9,747.1	-0.5	-3.0	-6.2
Czech Republic (PX)	1,084.8	-0.4	+0.6	-3.0
Denmark (OMXCBO)	910.1	-2.8	-1.8	-5.3
Hungary (BUX)	36,954.2	+2.1	-6.2	-11.9
Norway (OSEAX)	1,027.3	+1.2	+13.3	+12.7
Poland (WIG)	60,097.9	-0.2	-5.7	-10.7
Russia (RTS, \$ terms)	1,113.8	-4.0	-3.5	-3.5
Sweden (OMXS30)	1,622.6	+0.6	+2.9	-5.9
Switzerland (SMI)	9,176.2	nil	-2.2	-4.2
Turkey (BIST)	96,973.8	-0.2	-15.9	-39.7
Australia (All Ord.)	6,354.9	-0.1	+3.0	-1.8
Hong Kong (Hang Seng)	28,359.1	+0.1	-5.2	-5.6
India (BSE)	37,887.6	+1.0	+11.2	+3.4
Indonesia (IDX)	6,094.8	+1.0	-4.1	-9.9
Malaysia (KLSE)	1,804.7	+0.9	+0.4	-0.3
Pakistan (KSE)	42,731.9	-0.2	+5.6	-6.2
Singapore (STI)	3,326.7	-0.1	-2.2	-4.2
South Korea (KOSPI)	2,301.5	-0.2	-6.7	-10.8
Taiwan (TWI)	11,075.3	-0.2	+4.1	+1.1
Thailand (SET)	1,721.6	nil	-1.8	-3.7
Argentina (MERV)	26,674.9	-9.1	-11.3	-39.3
Brazil (BVSP)	79,151.7	-0.2	+3.6	-8.3
Chile (IGPA)	26,897.5	-1.1	-3.9	-8.1
Colombia (IGBC)	12,188.4	-0.3	+6.2	+9.1
Mexico (IPC)	49,894.6	+0.9	+1.1	+7.3
Peru (S&P/BVL)*	20,213.5	-1.0	+1.2	+0.3
Egypt (EGX 30)	15,862.9	+1.2	+5.6	+5.2
Israel (TA-125)	1,427.0	+1.0	+4.6	-1.2
Saudi Arabia (Tadawul)	8,210.3	-0.9	+13.6	+13.6
South Africa (JSE AS)	57,786.3	+0.7	-2.9	-10.2

The Economist poll of forecasters, August averages (previous month's, if changed)

	Real GDP, % change				Consumer prices		Current account	
	Low/high range		average		% change		% of GDP	
	2018	2019	2018	2019	2018	2019	2018	2019
Australia	2.7/3.2	2.3/3.1	2.9	2.8 (2.7)	2.2	2.3	-2.5 (-2.6)	-2.6 (-2.7)
Brazil	1.2/2.0	1.9/3.0	1.6 (1.7)	2.4 (2.6)	3.9 (3.5)	4.2 (4.3)	-1.0	-1.4 (-1.3)
Britain	1.1/1.5	0.7/1.8	1.3	1.4	2.4	2.0	-3.5 (-3.6)	-3.2 (-3.3)
Canada	1.9/3.2	1.6/3.7	2.3	2.2 (1.9)	2.2	2.0	-2.6 (-2.7)	-2.4 (-2.5)
China	6.5/6.7	6.1/6.8	6.6	6.3	2.1 (2.2)	2.3 (2.4)	0.6 (0.7)	0.5
France	1.6/2.0	1.6/2.2	1.8 (1.9)	1.8	1.9	1.4	-0.6 (-0.8)	-0.6 (-0.8)
Germany	1.8/2.4	1.6/2.5	2.1	2.0 (1.9)	1.8	1.7	7.8 (7.7)	7.4 (7.3)
India	6.7/7.7	6.9/8.2	7.2 (7.3)	7.4 (7.5)	4.6 (4.7)	4.7 (4.9)	-2.4 (-2.5)	-2.4
Italy	1.1/1.4	0.9/1.8	1.2 (1.3)	1.2	1.3 (1.2)	1.3 (1.2)	2.6 (2.5)	2.4
Japan	0.7/1.5	0.6/1.6	1.2 (1.1)	1.2 (1.1)	1.0	1.3 (1.2)	3.7 (3.8)	3.8
Russia	1.5/2.0	1.4/2.1	1.7	1.7	3.0 (2.9)	4.2	4.0 (3.5)	3.4 (3.1)
Spain	2.5/3.0	1.0/3.2	2.7	2.2 (2.3)	1.7	1.5	1.4 (1.5)	1.4 (1.5)
United States	2.7/3.1	1.6/3.3	2.9 (2.8)	2.5 (2.4)	2.4 (2.5)	2.2	-2.7	-2.9 (-3.0)
Euro area	2.0/2.4	1.7/2.6	2.1 (2.2)	1.9	1.7 (1.6)	1.5	3.4 (3.3)	3.1

Sources: Bank of America, Barclays, BNP Paribas, Citigroup, Commerzbank, Credit Suisse, Decision Economics, Deutsche Bank, EIU, Goldman Sachs, HSBC Securities, ING, Itaú BBA, JPMorgan, Morgan Stanley, RBS, Royal Bank of Canada, Schroders, Scotiabank, Société Générale, Standard Chartered, UBS. For more countries, go to: Economist.com/markets

Other markets

	Index Aug 8th	% change on one week	Dec 29th 2017	
			in local currency	in \$ terms
United States (S&P 500)	2,857.7	+1.6	+6.9	+6.9
United States (NASComp)	7,888.3	+2.3	+14.3	+14.3
China (Shenzhen Comp)	1,466.7	-5.3	-22.8	-26.4
Japan (Topix)	1,744.7	-1.4	-4.0	-2.5
Europe (FTSEurofirst 300)	1,526.9	nil	-0.2	-3.5
World, dev'd (MSCI)	2,166.1	+0.8	+3.0	+3.0
Emerging markets (MSCI)	1,079.7	-0.7	-6.8	-6.8
World, all (MSCI)	522.2	+0.6	+1.8	+1.8
World bonds (Citigroup)	933.4	nil	-1.8	-1.8
EMBI+ (JPMorgan)	792.4	-0.6	-5.2	-5.2
Hedge funds (HFRX)	1,265.0 [§]	+0.1	-0.8	-0.8
Volatility, US (VIX)	10.9	+13.2	+11.0 (levels)	
CDSs, Eur (iTRAXX) [†]	63.6	+3.2	+41.0	+36.2
CDSs, N Am (CDX) [†]	58.0	-1.1	+18.1	+18.1
Carbon trading (EU ETS) €	17.4	-1.5	+113.9	+106.7

Sources: IHS Markit; Thomson Reuters. *Total return index. [†]Credit-default-swap spreads, basis points. [§]Aug 7th.

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The Economist commodity-price index

2005=100

	Jul 31st	Aug 7th*	% change on one month	% change on one year
Dollar Index				
All Items	144.3	143.1	-1.2	-1.5
Food	148.4	148.1	+1.6	-3.3
Industrials				
All	140.0	137.9	-4.2	+0.6
Nfa†	137.3	136.3	-3.6	+4.9
Metals	141.2	138.7	-4.4	-1.1
Sterling Index				
All items	200.1	201.0	+1.2	-1.4
Euro Index				
All items	153.3	153.5	-0.1	-0.2
Gold				
\$ per oz	1,222.0	1,211.9	-3.4	-3.4
West Texas Intermediate				
\$ per barrel	68.8	69.2	-6.7	+40.7

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional

[†]Non-food agriculturals.

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General counsel
Royal Mail



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Under the volcano

Luc Nkulula, campaigner for democracy in Congo, died on June 10th, aged 32

THE fire took hold at around midnight. It was so fierce and sudden in the wooden house in Himbi, outside Goma, in eastern Congo, that Luc Nkulula could not get through the lounge to the main door. Nor could he climb out of his bedroom window, which was barred against thieves. He managed to stuff his laptop and some papers through, the most important things. Then the blazing curtain fell on his back, and he could not fight it off.

His sister Amen, coming in from the outside privy, heard a noise like an explosion and saw him burning. After an hour, firemen came; by then, the house was ashes. Investigations by a state procurator blamed an overheated battery, but Mr Nkulula's friends were sure he had been killed by the government in Kinshasa.

It seemed obvious why. As a founder-member of *Lutte pour le Changement* (Struggle for Change), *Lucha* for short, he had campaigned since 2012 for democracy in Congo, for proper elections and alternation in government, instead of the relentlessly continuing rule of President Joseph Kabila, who had clung on for 17 years. At a meeting with Mr Kabila in August 2016 he was chief spokesman, hammering the president for his apparent indifference to the rapes and killings that still went on in the east of the country, and urging him to

hold elections or face consequences. In December that year he stormed social media by standing on a police lorry, surrounded by armed police, raising a defiant fist. He was arrested and beaten several times for protests in the street. Each one was a badge of honour, a proof that he and *Lucha* (Luc and *Lucha*, their names so enjoyably close) were getting on the government's nerves.

And yet *Lucha*—and he—were also so well-behaved, as militants went. They were upper-middle-class and French-speaking. Many were professionals. He was a law graduate and a legal consultant for non-profits; his largely absent father had been a doctor. Although the Congo he grew up in was a desperate place, racked by a civil war in which millions had died and despots had dug themselves in, he kept *Lucha* both idealistic and legalistic. Its banners tended to read “Respect the Constitution, Article 64”, and its firm creed was non-violence: preferably organising *villes mortes*, in which people protested by staying at home for a day or two. His first modest campaign was to get more jobs and clean drinking water for Goma. From this, and the vitality he poured into the movement, he earned the nickname “H₂O”.

His chief task in the movement was to educate young men and women to be good citizens, to engage in politics and to

insist on social change, even down to litter-free streets. In his neatly buttoned white shirt he would stand before blackboards chalked with the words “Innovation”, “Entrepreneurship”, “Collaboration” and “Creative Empowerment”. On the day he died he had been impressing those things on around 100 teenagers from 14 *quartiers* of Goma. He had to harness their energy and spirit for Congo's sake.

In the ramshackle back-streets, still strewn with cooled lava rocks from the volcano Nyiragongo which rose behind the city, he would talk idealistic politics ten to the dozen. As a boy he had yelled about any injustice, and he still could, but anger did not drive him. He rebuffed it with an impish smile, or a positive spin. Even when dressing down Mr Kabila he managed to be more or less polite, because that petty oppressor was not the problem. The whole system was rotten and unfree, and each man and woman had to strive to make it better. For his part, he had learned responsibility fast; his mother's death in 2010 had suddenly made him the protector and provider for his sister, then 12, who still lived with him. Amen remembered how he had smiled at her even as he burned, and as he yelled at her to run away.

Dignity was what every Congolese most deserved: the right to respect, free expression, free association, a free vote. Why should anyone hesitate to ask for these? Only because fear had invaded everybody—fear that someone you knew might be killed, or agents would take your laptop and phone, or that the “forces of order” would stop you for walking in the street after 6pm and “resolve the situation” for money. Even demanding clean water had got him arrested. Asking for elections had been met with tear gas and live rounds. Intelligence goons trailed him; neighbours distrusted him and each other. *Lucha* lacked the numbers and organisation to make the difference he wanted. But should he therefore shut himself up in some little box, terrified of changing the future?

Across the lake

The man he longed to emulate was Patrice Lumumba, the first prime minister of independent Congo, whose hope had been to unify the vast country before he was deposed in 1960, and later murdered, with the connivance of Western powers. He took Lumumba's finest words as his own motto, instinctively clenching his fist as he declared them: “Le Congo est grand, et il demande de nous la grandeur.” He saw the ideal Congolese citizen, *l'homme congolais*, powerfully free and assured of his rights in a country cleansed of corruption and united in peace. Looking out from Goma on the beauty of Lake Kivu and Nyiragongo, the land he loved, he dreamed fiercely, and was buried among those dreams. ■



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